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THE HISTORICAL GEOGRAPHY
OF THE COAL BRANCH

BY

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A THESIS

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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies for acceptance a thesis entitled The Historical Geography of the Coal Branch, submitted by David Lake in partial fulfilment of the requirements for the degree of Master of Arts.

ABSTRACT

This thesis studies the historical geography of a region located in west-central Alberta in which the rise and fall of the coal industry has affected the landscape in various ways in the past. Other economic activities are discussed in terms of their impact on the landscape through time. The present landscape is, in part, a product of past human activities in the Coal Branch. However, not all past changes in the landscape through human activity are expressed in the present landscape.

The first two chapters in this thesis provide background material necessary to gain an understanding of how developments in the region were possible. The terms "landscape" and "region" are defined and discussed in relation to their usage by geographers, and how this usage is similar or different to that employed by the writer. Discussion of the physical geography and geology of the region gives the reader an idea of its natural setting, which has been subsequently modified by human activity.

Chapters III, IV, and V are organized chronologically. Chapter III focusses on the landscape changes associated with the rise of the coal industry from 1911 to 1945, while Chapters IV and V analyze its decline from 1946 to the present. Other economic activities are discussed to a degree proportionate with their effects on the landscape

through time.

The summary and conclusions in Chapter VI integrate and interpret some of the important landscape changes brought out in the previous three chapters. It is concluded that the landscape in the Coal Branch will continue to change in the future due primarily to the likelihood of renewed strip mining in the Luscar area.

The main source of information for this thesis was derived from interviewing people who have some understanding of the Coal Branch of the past. Maps and photographs of the past were collected from these people as well. This thesis will demonstrate, in the writer's opinion, the usefulness of maps and photographs in studying landscapes.

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CHAPTER I

INTRODUCTION

The Coal Branch is a good region for carrying out a historical geographical study. The varying fortunes of the coal industry have largely determined the degree of economic vitality of its inhabitants through time. When determining the suitability of calling an area of any size a geographical region, one must discover a uniqueness which is more or less spread homogeneously over that area and which distinguishes this region from adjacent areas. Richard Hartshorne defines a geographical region as "an area of specific location which is in some way distinctive from other areas and which extends as far as that distinction extends".¹ J.O.M. Broek outlines two types of regions which have been employed by geographers. Uniform or formal regions are "regions based on one or more uniform features or feature complexes, such as climatic or economic regions".² Another category of regions emphasizes homogeneity in internal structure or functional organization as, for instance, the trade area

¹ R. Hartshorne, Perspective on the Nature of Geography, 1954, pp. 130, 131.

² J.O.M. Broek, Geography Its Scope and Spirit, 1965, p. 60.

of a city. Such regions are designated as functional or nodal ("nodal" because they usually have a centre or node to which the region is tied by internal circulation).³

The Coal Branch, located in and immediately east of the Nikanassin Front Range of the Rocky Mountains in western Alberta about 150 miles west-southwest of Edmonton has two characteristics which prove its validity as a formal and a functional region (Map 1).

Firstly, the chief economic activity of the region between 1911 and the late 1950s was coal mining and coal processing. Settlements were usually built within one-half mile of the source of employment for the men; if the mine closed down, the inhabitants had to move elsewhere in order to find jobs. The end results of such labour migrations were ghost towns, which were a striking feature on the landscape in this region until recent years when many of them were destroyed by the Government of Alberta. Except for a few rather small operations, the mines in the Coal Branch sold their coal to the C.N.R.⁴ As the market for steam coal constricted rapidly during the 1950s with the onset of dieselization, nearly all of the towns lost their inhabitants. Two exceptions are Cadomin and Robb where

³ Loc. cit.

⁴ C.N.R. in this thesis will refer to the Canadian National Railroad.

limestone quarrying and lumbering, respectively, are chiefly responsible for their continuing habitation.

Secondly, the settlements in the Coal Branch were constructed only after a railroad link with the outside world was established. Until 1951 when Highway 47 was completed (Map 1), rail transport was the only means (other than by hiking or by packhorse) of entering or leaving the region. The proximity of some of the towns to each other and their relative isolation from the outside world led to numerous means of intercommunication within small areas of the region. For example, Luscar, Cadomin, and Mountain Park frequently competed with each other in sports tournaments which were well attended by the townsfolk (Map 2). Similarly, Foothills, Coal Valley, and Sterco were not far removed from one another so that people in one town were within walking distance of their friends in the next town (Map 2). From these contacts and as a result of the possibility of injury or death occurring to the miners, a common feeling of kinship developed, a feeling which has not faded away even today among many of its former residents.

The name "Coal Branch" is derived from the branching off of a railroad into the area at Bickerdike, located some ten miles west of Edson on the C.N.R. mainline between Edmonton and Jasper (Map 1). Settlement in the region can be described as being in a 'V' shape. Robb, Coalspur, and Mercoal (Map 2) are at or near the bottom of the 'V' (the

Head of the Branch) while Luscar, Cadomin, and Mountain Park are located in the West Arm of the 'V', and Sterco, Coal Valley, Foothills, and Lovett are in the East Arm. It will be demonstrated later in this thesis that this 'V'-shaped settlement pattern is closely related to the location of the railroads in the region, which is in turn related to the geology of coal and the subsequent location of mines.

In this thesis the term "landscape" refers to the appearance of the surface of the earth in the Coal Branch with special focus on the role of man in modifying this surface. The concept of landscape has long been obscured by the double meaning attached in common German usage to the apparently parallel term, "Landschaft". Landschaft has been used in German literature to refer to either the landscape in the sense of the general appearance of a section of the earth's visible surface, or a restricted region of the earth's surface. One problem is apparent at once with respect to this thesis. In discussing the historical geography of the Coal Branch, the concept of landscape (as the writer has defined it) is not sufficient to analyze completely this region's past geography. Thus, the focus of the thesis has to do with landscape but certainly not the entire thesis.

The classical concept of historical geography is one of describing and explaining a number of landscapes

which succeeded one another in an area through time. Derwent Whittlesey⁵ was one of the chief advocates of this concept of sequent occupance. Carl Sauer⁶ enunciated a concept which focussed on the idea of cultural evolution in a given area through time. Sauer argued that it was possible to break the landscape into two separate components: the "natural landscape" (Urlandschaft) and the "cultural landscape" (Kulturlandschaft). He conceived as natural landscape the original landscape of an area before the entry of man; as cultural landscape, that landscape transformed by man.⁷ He was not interested so much in recreating past landscapes but rather in analyzing changes in these landscapes. In this study both Sauer and Whittlesey's ideas in historical geography will be employed. The analysis of maps and photographs taken at the same location at different periods of time is along the lines of the sequent occupance approach. On the other hand, discussion of changes in the coal industry through time and the effects of these changes on the landscape tends to follow Sauer's idea.

In this study of the Coal Branch, one is dealing

⁵ D. Whittlesey, "Sequent Occupance", Annals of the Association of American Geographers, 1929, pp. 162-165.

⁶ C.O. Sauer, "The Morphology of Landscape", University of California, Publications in Geography, 1925, pp. 19-53.

⁷ P. Haggett, Locational Analysis in Human Geography, 1965, p. 11.

with a relatively short span of time through which geographical changes are analyzed. One can speak of the pre-coal era, the coal era, and the post-coal era and cover a period of recorded time of less than a century. The period from 1911 to 1959 is designated by the writer as the coal era, for coal mining and processing was by far the most important economic activity in the region. Before 1911 the region was comparatively unpopulated even by Indians. After 1956 the mine at Mercoal was the only one producing significant amounts of coal. This operation was abandoned in 1959. The year 1955 saw the beginning of exploitation of limestone near Cadomin by the Inland Cement Company. This exploitation is continuing today at a steady rate (Table XXXI, Appendix). Thus, coal mining was the chief means of affecting the landscape, and these effects were produced in the short time period of forty-eight years.

The organization of this thesis is as follows. Chapter II provides the physical and geological background necessary to gain an understanding of how developments in the study area were possible. Chapter III begins with a historical narrative of activity in the region prior to 1911 and then traces the rise of the coal industry and other economic activities and their effects on the landscape until the peak of activity, which was reached during the Second World War. Chapter IV examines landscape changes and spatial relationships of geographical phenomena

associated with the decline of the coal and lumbering industries, and also examines the breaking down of the isolation between the Coal Branch and the outside world. Chapter V focusses on the present landscape but also covers a time period extending from 1960 until well into the future. Attempts are made in Chapters III and V to describe in some detail the appearance of the landscape between 1911 and 1922, between 1939 and 1945, and at present. Maps and photographs are employed to aid in the visualizing of the landscape during these periods. The summary and conclusions in Chapter VI integrate and interpret some of the important landscape changes brought out in previous chapters.

Comparatively little material has been written about the Coal Branch which was and is little known outside of Western Canada. In addition, the present landscape provides only limited information about its appearance in the past. These two facts have presented a problem which has been approached mainly by interviewing people who have lived and worked in the Coal Branch or who have some understanding of its past. Most of the interviews were conducted with the use of a tape recorder, which has proven to be a valuable tool in relieving the interviewer of the distraction of note-taking. Maps and photographs of the past have also been collected from these people. This thesis will demonstrate, in the writer's opinion, the usefulness of maps and photographs in studying landscapes.

Map 1 indicates the size of the Coal Branch (about 350 square miles) relative to that of Alberta (255,285 square miles).

Three criteria have been used to define the boundaries of the Coal Branch. Firstly, part of the boundary of the West Arm has been delimited on the basis of watershed divides. Secondly, the region includes those settlements and mines from which coal has been shipped out via the Bickerdike branch of the C.N.R. Since the lumbering industry has been involved in the supply of timbers to the mines, and also, since Coal Branchers have used the surrounding countryside for various recreational activities, large areas of hinterland around the mines and settlements have been included as part of the region. A third criterion which is used to define the boundaries of this region is to determine which people in west-central Alberta considered themselves to be Coal Branchers. There were coal mining areas less than fifty miles to the south and to the north of the Coal Branch - Nordegg, Hinton, Pocahontas, and Brûlé. However, the second and third criteria by which the Coal Branch is defined in this thesis have not been realized in these areas.

On the basis of these three criteria, the boundaries of the region have been defined as follows. South of Mountain Park the boundary follows the drainage divide between the McLeod River and the Cardinal River (Map 2).

Proceeding northwestwards, the drainage divide between the McLeod and Rocky Rivers separates the Coal Branch from Jasper National Park. Berrys Creek is chosen as a boundary of the region since coal mining was not carried on west of this creek. The boundary follows the western margin of the Antler Creek watershed and the banks of the McLeod River so as to include lumbering operations southeast of this 'line' as part of the region. In the cases of the Head of the Branch, the East Arm, and the eastern margin of the West Arm, the boundary is drawn so as to include areas of past coal mining activity in the region (Map 2).

A historical geographical study should be of some value in explaining present landscapes and spatial relationships of geographical phenomena. This idea is an important underlying theme of this study: to relate past landscapes to the present landscape. As far as the study having some predictive value as to future activity or lack of activity in the region, it would be very difficult to ascribe much usefulness to this study. One could make certain guarded predictions as to the future of the limestone and logging industries, particularly in the case of the former. As regards the coal industry, dieselization has effectively and permanently destroyed the market for steam coal, so that any large-scale coal exploitation in the future

would be conditional upon new markets⁸ being found for the region's coal or coal byproducts. Certainly, light on this subject cannot be shed by examining the exploitation of coal in the past for a totally different market.

The development of the Coal Branch in the past has been intimately related to changes in the railroad and domestic markets for coal. The development of the Coal Branch was in response to a demand by the Grand Trunk Pacific Railroad for sources of steam coal for its trains running from Winnipeg to Vancouver via the Yellowhead Pass located west of Jasper. The decline and extinction of coal mining is explained by the complete loss of this railroad market. Between the initial rise of the coal industry in the region and its rapid decline in the 1950s there have occurred a host of developments which have found their expression in the landscape and which can be interrelated to one another.

⁸ An assessment of the quantity and quality of coking coal reserves which could be a source of supply for the Japanese market will be considered in Chapter V.



CHAPTER II

PHYSICAL GEOGRAPHY AND GEOLOGY

In order to understand man's effect on the landscape it is necessary to investigate the physical background. Some discussion of the drainage, topography, vegetation, soils, and climate of the Coal Branch is helpful before looking at the geology and the derivation of the region's coal deposits.

PHYSICAL GEOGRAPHY

The Coal Branch is drained by two major river systems, the McLeod River and a small portion of the Pembina River system. The McLeod River has its origin south of the settlement of Mountain Park, flows past Cadomin essentially parallel with Highway 47 and the C.N.R. tracks to a point one and one-half miles southwest of Mercoal where it leaves the region. Upstream from this point, the McLeod River flows north and north-eastwards, which direction is perpendicular to the strike of the land, hence exposing the various geological formations that trend across its course. Two of the McLeod's major tributaries are the Gregg and Embarras Rivers. The headwaters of the Gregg River occur

in the region a few miles west of Luscar. The River soon flows out of the Coal Branch and joins the McLeod River some fifteen miles northwest of Robb (Map 1). The Embarras River rises between the East Arm and West Arm and flows past Coalspur and Robb before joining the McLeod River near Highway 47 at the site of the Svedburg Lumber Company (Map 1). The Lovett (Little Pembina) River has its origin about five miles west of Foothills, alternates between being a resequent and a subsequent stream,¹ and then from Reco southeastwards to its entry into the Pembina River, it becomes a subsequent stream.

The rivers in the Coal Branch are too small and variable in terms of discharge to be used for the commercial transport of goods. For example, the mean discharge of the McLeod River at a point one mile above its confluence with the Embarras River is 600 cubic feet per second, measurements having been taken over the period from 1955 to 1965.² The maximum and minimum daily discharges over the same period of time are 14,600 cubic feet per second and 36 cubic feet per second, respectively, which correspond with gauge

¹ A subsequent stream is one which flows parallel with the strike, that is, the prevailing directional trend of the ridges and valleys. A resequent stream is one which establishes its course in the landscape after initial uplift and which flows perpendicular to the strike.

² Government of Alberta, Department of Agriculture, Water Resources Branch, Surface Water Data of the Athabaska River Tributaries, Edmonton, [n.d.], pages not numbered.

heights of 13.28 feet and 5.96 feet.³ Assuming a zero gauge mark of from four to five feet, it is readily apparent that the McLeod River at maximum discharge is less than nine feet in depth, which, together with the high velocity of flow and numerous boulders and other obstacles in the River, is inadequate for any large-scale bulk transport.

Flooding, especially along the McLeod River in the Cadomin area, has been an occasional menace to mine buildings, underground mines, settlements, roads, and railroads. A serious flood in June 1952 washed out many bridges in the Cadomin area, made Highway 47 impassable between Cadomin and Mercoal, washed away a few buildings in Cadomin located beside the River, and made rail transport a risky business at the time.⁴ The Embarras River in 1954 rose four feet over the bankfull stage and covered its narrow valley at Robb from side to side.⁵ Runoff is facilitated by the uneven terrain although, on the other hand, it is considerably impeded by the ubiquitous stands of coniferous forest.

In talking of the major streams of the region and their velocities and volumes of discharge one might create the impression that the drainage is quite favourable, at least from the point of view of a person traversing the

³ Ibid.

⁴ Pers. comm. G. Conger, School Teacher, Peers, Alberta, June 12, 1967.

⁵ Pers. comm. E. Aloisio, Robb, June 13, 1967.

region by foot. Such is generally not the case, for on the extensive interstream divides between the youthfully dissected streams there is considerable muskeg which makes walking difficult. Even in some of the little incised valleys, such a situation frequently applies. This impeded drainage increases as one moves away from the mountains into areas of comparatively smaller relief. To be sure, there are exceptions to these statements. Generally river bottom lands, such as near Cadomin with its extensive gravel flats, are excellent areas on which to transport goods by land or to construct settlements. In particular, it should be noted that drainage is especially poor in many areas between the Coal Branch and Highway 16 between Edson and the Rocky Mountains. Thus, travel into the Coal Branch, whether by land or by water, was until recently a difficult undertaking.

Another hindrance to penetration into and within the region has been the dense stands of timber found ubiquitously in and around the region. There are open meadows in only a few places along the major stream valleys. However, even before the entry of the white man into the region, there were numerous burnt over areas. The main types of trees found in the region are Engelmann, black, and white spruce; lodgepole pine; mountain fir; and poplar. In many black spruce muskegs, tamarack (which is good for the manufacture of railroad ties) is making a good recovery following the tamarack saw-fly attack in 1919, which destroyed almost all

of the tamarack trees in the Coal Branch.

The soils are primarily grey wooded and have been developed on till and weathered sandstone. The soils developed on till are medium-textured, grey wooded clay loams while the soils developed on weathered sandstone are usually grey wooded and are of a sandy loam to silty loam texture. The types of soil, the relatively high elevations (3700-7500 feet above mean sea level), the cool climate with very short and variable growing season, and the steeply sloping topography make commercial agriculture an impossibility. In the Coal Branch, snow and frost are possible in any month of the year. For example, in June, 1945, Mountain Park received in one storm five feet of snow, which resulted in the collapse of the ice arena there!⁶

GEOLOGY

Derivation of Coal

The story of coal in the region starts in the Cretaceous period of geological time, 60 to 135 million years ago. During this period coal deposits were formed from vegetation growing around ancient seas which advanced onto and receded from the land a number of times. Mountain-building activity in the Cenozoic era folded and faulted the seams so that as one approaches the Rocky Mountains in the Coal Branch, the dip and the contortions in the coal seams

⁶ Pers. comm. J.D.B. Brown, Edmonton, May 8, 1967.

tend to increase. The uplift of mountains meant that there was increased pressure on the underlying coal seams, resulting in a faster maturation (that is, hardening by pressure) of coal into what is now known as steam coal or medium volatile bituminous C Coal.⁷ As expected, as one moves away from the mountains, the hardness of the coal decreases.

The Cretaceous period was marked by great variations in the juxtaposition of land and sea. Consequently, plants growing along these shorelines were much smaller than, for example, those of the Carboniferous period, due to these climatic fluctuations in the environment of the plants. The result has been that within comparatively short distances the seams of Cretaceous coal in the Coal Branch are frequently highly irregular in size and composition. This irregularity has been compounded by subsequent tectonic activity. Alberta's coal was deposited in a great syncline with its axis trending north-northwest and south-southeast, approximately paralleling the Rocky Mountains. Upper Cretaceous coal outcrops near the centre of this syncline, whereas Lower Cretaceous coal outcrops along the western edge of the syncline in the most easterly ranges of the Rocky Mountains.

Following J.A. Allan's classification of coal areas

⁷ J.A. Allan, "Coal Areas of Alberta", Geology, Research Council of Alberta Report Number 34, 1943, p. 165. On p. 166 of the same publication, Allan has included an official classification of coal by rank.

in Alberta (1943), it is convenient to divide the Coal Branch into the Mountain Park Coal Area and the Coalspur Coal Area as is shown on Map 3. The former includes areas around Mountain Park, Cadomin, and Luscar, which contain coal seams of the Luscar (Kootenay) formation of the Lower Cretaceous period. There has been a difference of opinion as to whether coal in the Coalspur Coal Area is from the Belly River formation of the Upper Cretaceous period or from the Paskapoo formation of the Paleocene Tertiary period. Early authorities such as R.L. Rutherford, W.C. Whittaker, and B.R. MacKay have considered the coal to be Upper Cretaceous in age. However, later writers for the Geological Survey (1957) and geological maps of the Geological Survey (B.R. MacKay, 1949)⁸ have indicated that the coal is of very early Tertiary age. In this thesis, the later opinion will be accepted, because of the availability of additional field evidence supporting the Tertiary dating of the coal. The question, however, is a semantic one because authorities vary as to when the Cretaceous ended and the Tertiary period began.

Geology of the Coalspur Coal Area

This area extends from the Head of the Branch south-eastwards to Lovett and has Paskapoo beds of the Paleocene period which contain coal of high volatile C bituminous

⁸ Earlier maps of the Geological Survey showed the coal to be of Upper Cretaceous age.

rank. Three seams have been exploited commercially from this formation, the Mynheer, Silkstone and Val d'Or seams. The Mynheer seam outcrops just to the west of the Lovett fault (Map 3), the major structural break of the East Arm. This seam averages eighteen feet in thickness and dips fifteen to twenty-five degrees to the southwest. But in the vicinity of Sterco and Coal Valley, parts of the seam outcrop almost vertically and have been greatly thickened by repeated folding of the beds on top of each other. These beds have been subjected to a thrust from the southwest, and where there has been such resistance to the thrust that the beds have become steeply tilted, the seam has thickened. At Coal Valley and Sterco this thickened seam, known as the Mynheer seam, averages 300 to 450 feet in width, 300 feet in depth, and is overlain by 15 feet of clay.⁹ Two important strip mining operations were attracted to this seam and have operated continuously from the early 1920s until the late 1950s.

A string of abandoned mines at the Head of the Branch and the East Arm coincides with the trend of a prominent faulted anticline. The coal beds along this route form the southwest limb of this anticline. Travelling from Edson along Highway 47 into the Coal Branch, the approach to the anticline is accompanied by an increase in

⁹ Pers. comm. W.C. Whittaker, Managing Director of the Coal Operators' Association of Western Canada, Calgary, May 22, 1967.

the eastern dip of the beds. This is evident by the time Robb is reached where the dip is thirty degrees. Continuing along Highway 47 to Coalspur, the crown of the anticline is reached and passed. Sterco and Coal Valley are situated near the drainage divide between a branch of the Embarras River and Coal Creek, a branch of the Lovett River. The divide between these streams is close to the centre of the anticlinal structure. At Sterco the coal seams, being near the top and centre of the anticline, are much more broken and folded than the corresponding beds at Coalspur or Lovett. Coalspur is almost 800 feet lower in elevation than Sterco, so that the coal exposed at Coalspur is that much further down the dip of the strata.¹⁰ Following the Forestry Trunk Road in a southeasterly direction there is a reduction in the degree of broken and irregular structure from Sterco to the Brazeau River where the elevation is about the same as at Coalspur. Hence, the exposures are about equal distances down the dip from the centre of the anticlinal structure.

The earliest mining in the Coalspur Coal Area was carried on at Lovett by Pacific Pass Coal Fields Limited. This Company operated in the Silkstone and Mynheer seams where the strata dip about twelve degrees to the southwest. Subsequent mining operations southeast of Sterco by a number of small companies have been confined to the Mynheer seam,

¹⁰ R.L. Rutherford, Geology of the Area Between Athabaska and Embarras Rivers, Alberta, 1926, p. 25.

except for Foothills Collieries, which exploited the Val d'Or seam. The mines in the Robb and Coalspur areas have also worked the Val d'Or seam. The existence of Upper Cretaceous and Tertiary coal-bearing formations along the Athabasca and Gregg Rivers northwest of the Head of the Branch poses the question as to why there were so few mines here as compared with the Coalspur Coal Area. There are two answers to this question. Firstly, the formations do not carry as many thick seams of coal in the Athabasca Valley as they do to the southeast. The Paskapoo formation carries its maximum number of seams and maximum total thickness of coal in the area between Coalspur and the Brazeau River. As one follows the anticline towards the North Saskatchewan or the Athabasca Rivers, the coal content of the formation is progressively reduced. Secondly, there is the difficulty of locating seams in the Athabasca Valley because of the thick deposits of alluvial material which form river terraces. Such deposits render ordinary prospecting methods useless, so that the only means of obtaining valuable information about the coal in the area would be by drilling.¹¹

Geology of the Mountain Park Coal Area

The Mountain Park Coal Area, including the areas of Mountain Park, Cadomin, Luscar, and west to the headwaters

¹¹ R.L. Rutherford, Geology of the Foothills Belt Between McLeod and Athabasca Rivers, Alberta, 1925, pp. 59, 60.

of the Gregg River (Map 2), contains Lower Cretaceous beds of the Kootenay formation, the coal-bearing part of which is locally known as the Luscar formation (Map 3). The latter term is applied to an area extending from Nordegg to the Mountain Park, Cadomin and Luscar coal basins, to Brûlé, and as far northwestwards as the Smoky River.

The structural relations in the Mountain Park Coal Area are similar in general to those in the foothills area to the east which has already been described. However, the rocks here have been as a rule more greatly deformed by mountain-building forces and occur as a series of folds and faults having an average trend of sixty to seventy degrees west of north. Increasing deformation in the West Arm occurs from east to west across the strike of the formation. This has raised the Paleozoic beds to the surface, and these beds form the front ranges of the Rocky Mountains and also form outliers of Paleozoic rocks as pronounced uplands. One of these uplands extends between Mountain Park and Cadomin as the Nikanassin Outlier, which joins the main Front Range (Nikanassin Range) northwest of Cadomin (Map 2). The Nikanassin Outlier terminates to the southeast before reaching the Cardinal River.

Geological studies in the Coal Branch have revealed no evidence of any significant reserve of minerals of economic value except for coal and limestone, the latter being an important raw material used in the making of cement.

There are known deposits of marl situated along the McLeod River just north of Cadomin which have been exploited on a small scale in the past. In addition, considerable oil prospecting has and is being carried out in the region, but so far, the results have not been too promising. However, limestone is common in the front ranges of the Rocky Mountains. Great overthrusts have left hundreds of feet of limestone from the Ordovician, Devonian, Mississippian, and Triassic periods overlying the more recently deposited Cretaceous coal measures. The limestone in the Cadomin area in the Nikanassin Outlier is part of the Palliser formation from the Devonian period. The dip slope is twenty-five to thirty-five degrees, a reflection of the degree of overthrust which has occurred in the past.¹² Limestone exploitation by the Inland Cement Company has been limited to operations on a small mountain whose shape has been considerably modified since the commencement of operations in 1956.

The geology of areas in the Mountain Park Coal Area having had important coal mining operations will now be discussed. The former site of the settlement of Mountain Park is located in a coal basin marked by considerable relief. The valley bottom near the mines is at 5800 feet while higher ridges surrounding the basin are 7,000 feet or more above mean sea level. The coal measures here form part of

¹² Pers. comm. M.T. Pero, Cadomin, July 1, 1966, Quarry Superintendent, Inland Cement Industries Limited.

a fault block which is oriented in a southwesterly direction. The only exceptions to the dominant southwesterly dip of the strata are local folds in shales and drag folds on the northeast side of thrust faults.¹³ At the townsite the dip of the beds is thirty degrees to the southwest. This basin shows a continuous section from Paleozoic limestone and quartzite to the Kootenay formation¹⁴ to Colorado sandstone and shale of the Upper Cretaceous period. The Kootenay formation contains many coal seams, which vary in thickness from one to thirty-two feet, and of which three have been worked by the Mountain Park Coal Company.¹⁵

Unlike the Mountain Park operation, coal mining at Cadomin has been confined to one seam, a seam which is thicker and more steeply pitching than those in the Mountain Park area. Since the Cadomin operation is in close proximity to the Nikanassin Outlier which has been discussed previously, one could surmise that the Kootenay beds have also been intensely folded by noting the folding in the adjacent Paleozoic rock formations. That this assumption is correct can be seen by noting that the Cadomin coal seam is often

¹³ J.S. Stewart, Geological Survey of Canada Summary Report, 1916, p. 103.

¹⁴ The term "Kootenay" as locally used in northwestern Alberta is synonymous with Lower Cretaceous and has not the same age significance as pertains to the Kootenay formation of southwestern Alberta.

¹⁵ J.A. Allan, "Coal Areas of Alberta", Geology, Research Council of Alberta Report Number 34, 1943, p. 174.

repeated in section, has a thickness of thirty to thirty-five feet, and has a pitch of fifty-five to seventy degrees.¹⁶ Despite the tilting and folding of the coal measures, there has been no major faulting of the seam in the Cadomin area so that it is remarkably continuous.¹⁷

The Luscar-Gregg River basin is a continuation of the Cadomin basin. At Luscar coal has been mined from the Luscar formation (Kootenay) of Lower Cretaceous age, but occurring somewhat higher stratigraphically than the seam in the Kootenay formation at Cadomin. Prospecting and drilling in the Luscar area have indicated the presence of four thick coal seams in addition to several thinner ones.¹⁸ These four seams occur within 800 feet of strata. The uppermost one is called the Jewel seam and is forty to forty-two feet thick; it has been mined extensively. The others are forty-nine, thirty-six, and twenty-eight feet thick, respectively, as one proceeds underground.¹⁹ Where these seams appear on or near the surface as a result of intense deformation west of Luscar, strip mining becomes a practical proposition. Northwest of Luscar near the

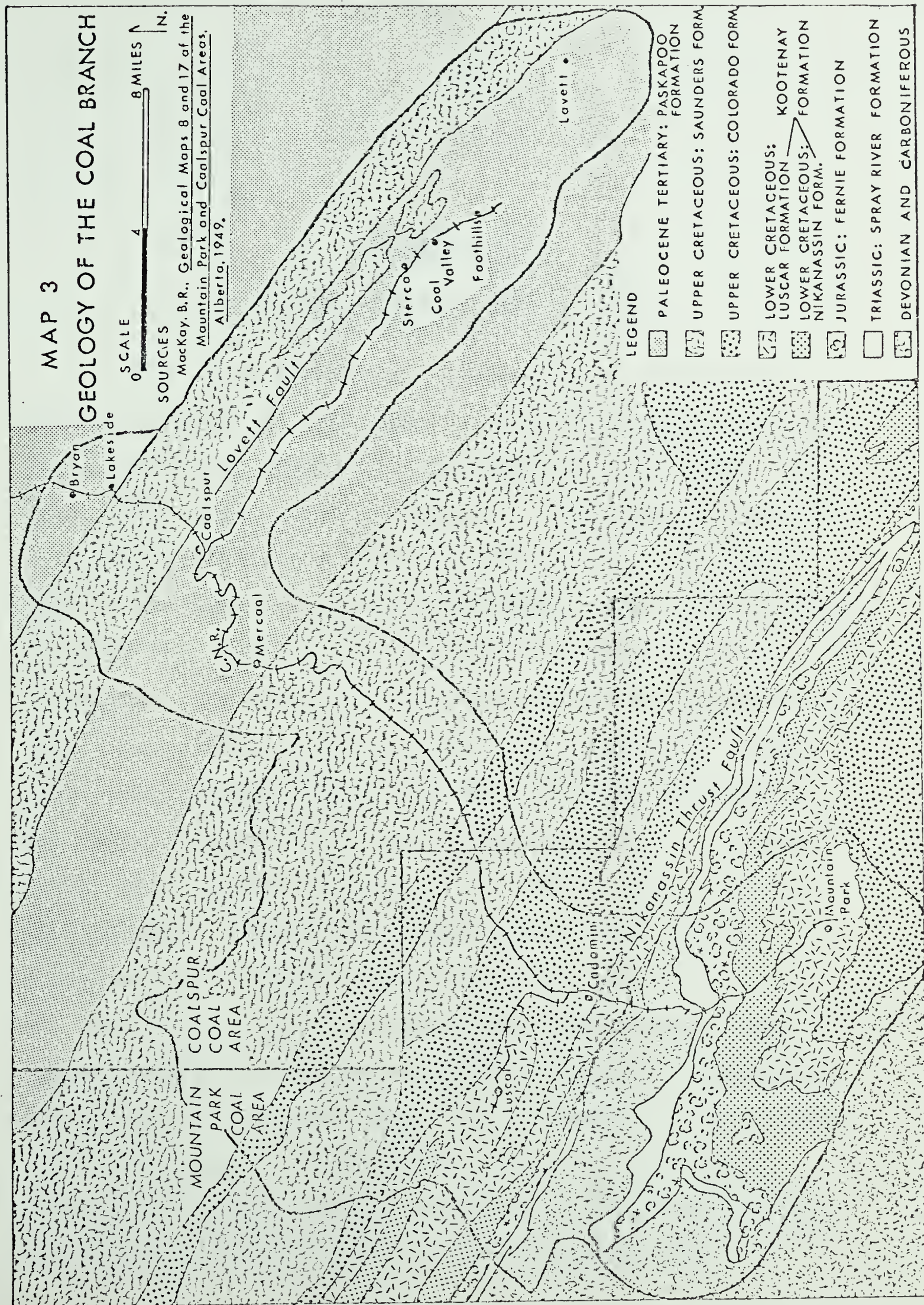
¹⁶ N. Melnyk, Transactions of the Canadian Institute of Mining and Metallurgy, 1942, p. 208.

¹⁷ Ibid., p. 210.

¹⁸ R.L. Rutherford, Geology of the Foothills Belt Between McLeod and Athabasca Rivers, Alberta, 1925, p. 52.

¹⁹ Ibid., p. 52.

headwaters of the Gregg River, the Kootenay strata have been prospected and exploited by both the Cadomin Coal Company and Luscar Collieries, but to a lesser degree than the operations at Luscar and Cadomin.



CHAPTER III

THE COAL BRANCH PRIOR TO 1945

The first commercial coal was mined in the Coal Branch in 1911, but the story of man's modification of the landscape in the region does not begin at this time. In other words, the events leading up to the first commercial coal mining activity are an integral part of the story. Without the exploration and development prior to 1911, which included the construction of a railroad to the outside world, commercial coal mining in 1911 would have been impossible. This chapter deals with a discussion of landscape changes after 1911 although it is preceded by a brief historical narrative. Attempts are made in this chapter to analyze in detail the changing landscape from 1911 to 1922 and from 1939 to 1945. During the former period the mines at Mountain Park, Cadomin, Luscar, Mercoal, Mile 33, Sterco, and Coal Valley came into production. No important new companies began mining after 1922 so that the accompanying changes in the landscape were not so dramatic. The effects on the landscape of coal mining, lumbering, and other economic activities during the Depression and the period of prosperity during World War Two are discussed later in

Chapter III. The analysis of the landscape from 1939 to 1945 constitutes a summary of Chapter III.

Preliminary Exploration

Before 1911, there had been comparatively little exploration or economic activity in the region. Nineteenth century explorers and surveyors in Western Canada tended to explore and map only the most accessible areas and routes, namely the level, grass-covered plains and the areas adjacent to large and easily-navigable rivers such as the North Saskatchewan and the Athabasca. As soon as white men knew of the existence of the Crow's Nest Pass, the Kicking Horse Pass, the Yellowhead Pass, and the opening to the West Coast via the Peace River country (Map 1), they tended to follow these more convenient routes rather than try to explore the muskeg-infested area later to be known as the Coal Branch. The Geological Survey of Canada Report of Progress¹ in 1873 contains an account of a trip by the explorer, Selwyn, along the North Saskatchewan River near the present site of Rocky Mountain House during which he mentions sighting coal in the area. In 1879 G.M.

¹ A.R.C. Selwyn, "Observations in the North West Territory from Fort Garry to Rocky Mountain House", Geological Survey of Canada Report of Progress, 1873, pp. 17-62. Selwyn was not the first white person to note the existence of coal in the general area of west-central Alberta. Alexander Henry discovered the Saunders Creek deposits in 1810 (R.G. Seale, The Mining Industry of the Coal Branch and Upper Athabaska Regions: Its Development and Future, Unpublished Geography 525 Field School Paper, 1964, p. 8).

Dawson² writes concerning his trip from British Columbia to Edmonton during which he follows river valleys for the most part via the Peace River country, Lesser Slave Lake, and Athabasca Landing. With the developing interest in having transcontinental railroad links between the West Coast and the East Coast of Canada in the late nineteenth century, it was quite natural that the above mentioned passes should eventually be utilized for this purpose.

Both the Canadian Northern Railroad and the Grand Trunk Pacific Railroad planned transcontinental routes from Edmonton through the Yellowhead Pass to the West Coast. However, with the expropriation of these two railroad companies by the Federal Government-owned C.N.R. in 1919,³ only one railroad through the Pass was necessary. The shortest and easiest route to the Pass from the east followed the Athabasca Valley from Hinton to Jasper, which was at least thirty miles north of what was to become the Coal Branch.

By 1908 it was apparent that coal was needed to drive the steam-fired locomotives which would use the soon-to-be-completed Yellowhead route. Therefore, intensive

² G.M. Dawson, "Report on an Exploration from Port Simpson on the Pacific Coast, to Edmonton on the Saskatchewan", Geological Survey of Canada Report of Progress, 1879, pp. 1B-142B.

³ The close of World War One found both the Canadian Northern and the Grand Trunk Pacific bankrupt. The Canadian Government had guaranteed their bonds and was compelled to take them over.

exploration for coal was carried out in areas near the Yellowhead Pass. The actual date of discovery of coal deposits in the Coal Branch is not definitely known, although there are reports prior to 1870 by a General Butler which tell of hearing Indian tales from this region concerning "stones that burn".⁴ The first definite discovery was made between 1895 and 1900 by Jack Gregg from the United States.⁵ Between 1906 and 1909 several discoveries were made by Donald McDonald, William Bailie, P.A. Robb, and several others.

In 1908 D.B. Dowling explored the Coal Branch for the Geological Survey of Canada:

The general results ... were the tracing of a long strip of coal-bearing lands reaching northward from the Saskatchewan [North Saskatchewan River] to the sources of McLeod river, a distance of over 60 miles

South of the Grand Trunk Pacific line, in the foothills, there are coal fields of large extent [One of these] fields is situated on the headwaters of Embarras and Pembina rivers Over a portion of this area a seam of from 12 to 17 feet can be mined.

Higher grade, steam and coking coals may be obtained from more distant fields, to which approach is more difficult, since they are situated behind high, rocky ridges. The areas containing the best grade of coal extend in narrow strips from the Saskatchewan river to near the Athabaska, behind the Brazeau, Bighorn, and Nikanassin ranges [Nikanassin

⁴ "Wealth Unthought of a Generation Ago", Edson-Jasper Signal, October 11, 1928, p. 11.

⁵ Loc. cit.

Outlier], respectively On the McLeod the upper part of the coal-bearing horizon was observed to have about 20 feet of coal seams.⁶

About 1908 coal was discovered in the Athabasca Valley near Brûlé and also near Hinton. It was determined from assay reports that Coal Branch coal was generally superior in quantity, quality and in ease of extraction than coal taken from the Athabasca Valley. Compared with the Coal Branch deposits the Smoky River coal deposits were too far away from the market. Therefore, between 1909 and 1912 railroads were constructed by the Pacific Pass Coal Fields Ltd., from Bickerdike to their mine at Lovett, and by the Mountain Park Coal Company from Coalspur to their mine at Mountain Park (Map 4).

Initial Developments from 1911 to 1922

The location of the first three mines at Coalspur, Lovett and Mountain Park testifies to the relatively small amount of geological information available at that time about coal in the region. Of the three mines, only the Mountain Park operation appears to have been a wise choice.

⁶ D.B. Dowling, "Coal Fields South of the Grand Trunk Pacific Railway, on the Foothills of the Rocky Mountains, Alberta", Geological Survey of Canada Summary Report, 1909, p. 139.

TABLE I

Comparison of Coalspur, Lovett, and Mountain Park Mines

	Coalspur (Mine Number 220)	Lovett (Mine Number 233)	Mountain Park (Mine Number 282)
Years of production	11 (1911-22 excepting 1916)	10 (1911-20)	39 (1912-50)
Total production in tons	359,001.00	564,625.00	7,043,578.00 (1,162,282 tons from 1912 to 1922)
Mean maximum monthly employment	131.00	154.00	253.00 (1912-22)
Mean minimum monthly employment	46.00	50.00	114.00 (1912-22)
Production in tons per man-day*	1.83	2.77	2.87 (1912-22)

* Using the average of the two above totals and taking 200 man-days as the average number of days worked per year.

Source: See Tables IV, V, and VI, Appendix.

The production per man-day totals appear to suggest that the Lovett mine was nearly as efficient as the Mountain Park mine. However, the Mountain Park lease area contained better quality coal in terms of supplying the railroad market, and contained considerably greater reserves than the Lovett area. At first the Pacific Pass Company exploited coal from the Silkstone seam on the southwest side

of the valley of the Lovett River. Tunnels were driven in both directions along the strike of the anticline. To the southeast a rock wall was encountered, and to the northwest fire started in the mine workings. The only alternative was to try working the Mynheer seam on the northeast side of the River. This proved to be unsatisfactory, and operations ceased in 1920.⁷ Fire also was the cause of the early closure of the Yellowhead mine in 1922. Mountain Park had problems of a different nature. Its major problem was seepage of water via springs from the surface into the mine workings, but this was successfully combatted by installing pumps in strategic places throughout the mines.

At one time, the Pacific Pass Company had leases on all of the land in the East Arm. In the writer's opinion, had this company adequately prospected their lands before giving up some of their leases, the Lovett mine might never have come into operation. The coal deposits at Sterco and Coal Valley were much thicker, were much closer to the surface than those at Lovett, and were of adequate quality for the railroad market. Perhaps it was just simply a case of the Pacific Pass Company being unaware of the possibilities of strip mining these deposits at Mile 47 and Mile 48.

Ironically, a somewhat parallel situation arose in the West Arm. The Mountain Park Coal Company possessed

⁷ Pers. comm. M.L. Vitaly, present owner of a mine at Coalspur, Edmonton, July 3, 1967.

extensive leases in the Mountain Park and Luscar areas. The coal in the Cadomin area was not discovered until the railroad grade was being cut between Coalspur and Mountain Park. Why Mountain Park Coal Company did not choose to obtain leases in the Cadomin area is a matter of speculation. Perhaps the company thought that it had as much land under lease as it could handle,⁸ or the more steeply pitching seam at Cadomin led them to believe that they had the best known coal lands in the region.

In its first years of development from 1911 until 1922, the Coal Branch was not without its small operators. McLeod Collieries at Coalspur produced about 5,000 tons of coal over a two-year period before ceasing operations. The venture cost the Collins brothers approximately \$40,000.⁹ A similar fate befell Oliphant-Munson Collieries in the East Arm at Mile 40, which produced about 100,000 tons of coal over a four-year period (Table VIII, Appendix). Not all small operators abandoned operations or sold out to large companies. The operation at Foothills in 1918 started with a modest initial capital investment of \$300,000 (compared with \$2,500,000 for Mountain Park) and produced at a moderate and fairly steady pace until its closure in 1960.

It is interesting to compare the development of

⁸ Leases were obtainable from the Alberta Government at a cost of \$1 per acre, extended over a twenty-one year period and were renewable after that.

⁹ Government of Alberta, Mines Branch Report, 1913.

coal mining in the Coal Branch between 1911 and 1922 with that in the Crow's Nest Pass between 1900 and 1910¹⁰ and note the striking similarity of development. In both regions the market for all of the mines was mainly the railroad. Also common to both regions were many small-scale companies or individual miners who either increased their scale of operations, like Foothills Collieries,¹¹ or were abandoned or bought out by larger and usually more successful operators.

During these early years of development, Provincial and Federal Government regulations pertaining to minimum capital requirements, safety standards, quotas, limitations on the number of mines in an area, and the qualifications of supervisory staff were almost non-existent.¹² This, in

¹⁰ The construction of the Canadian Pacific Railroad through the Crow's Nest Pass preceded the appearance of the railroad in the Coal Branch by about a decade--hence the time difference in the development of the two regions.

¹¹ Foothills Collieries had an authorized capital of \$300,000 in 1921 and had increased this to \$7,500,000 by 1956 (Government of Alberta, Mines Branch Reports, 1921 and 1956).

¹² The supervisory staff of a mine included all or some of the following job titles: general superintendent, general manager, mine manager, pit boss, fire boss. The general superintendent supervised the work of the mine manager(s). This type of job was needed in the case of the Luscar Coals Limited which owned the mines at Luscar and Mountain Park and which, therefore, had two mine managers. The general manager was in charge of the bookkeeping end of the operation which included the sale of coal to customers. The mine manager was responsible for the operation of the mine and also the hiring and firing of miners. The pit boss, one position under the mine manager, showed the miners where to work and supervised the miners underground. At a large mine such as the one at Cadomin, there were three pit bosses, each having authority over a certain section of the mine. The fire boss, one position lower than the pit boss, was in charge of safety in the mine. He also supervised the use of dynamite inside the mine. Under the fire boss came the ordinary miners. (Pers. comm. N. Melnyk, former Mine Manager of the Cadomin Coal Company, Edmonton, July 6, 1967).

essence, explains why there were so many mine closures after five years of operation or less. When the Government of Alberta realized that too many accidents were happening in these mines, steps were taken to ensure at least a 'minimal' standard of working conditions in the mine and also 'minimal' qualifications of supervisory staff.

The discussion so far has been designed to provide the backdrop for a discussion of changes in the landscape in the Coal Branch between 1911 and 1922 when most of the important mines came into operation (Tables in the Appendix). Therefore, one should expect that in these twelve years, many changes must have occurred in the landscape as a direct result of human activity.

Two features which always accompanied the opening of a mine in these early years were the connection of that mine to the market(s) via a railroad, and the beginning of a settlement nearby whose raison d'être was the mine itself.

In Chapter II the difficulty of travel via road or water was discussed with reference to the types of streams and the swampy, hilly terrain found in this region. In addition, the distribution of coal markets from Vancouver to Winnipeg made road transport a costlier proposition than rail transport.¹³ Most of these early mines shipped in excess of eighty per cent of their production to the C.N.R.

¹³ This is assuming that all-weather roads from the region to markets would have been present at that time, which they were not.

for use in driving their steam locomotives. It seemed quite reasonable to expect that the C.N.R. should move their own coal to market. Because the railroad passed through many miles of coal lands en route from Coalspur to Lovett and Mountain Park, this meant that little or no railroad building was needed if a new mine was to be opened somewhere between the Head of the Branch and the extremities of either arm. Were the railroads planned on the basis of the factor of following the best terrain or were they deliberately planned so as to lie adjacent to the best coal lands? Probably both explanations had some validity. Certainly, the second explanation should not be overemphasized since, for example, there was some doubt as to whether Pacific Pass Coal Fields had an accurate idea of exactly how much coal actually lay between Coalspur and Lovett. In 1921 an important spur line was built from Leyland station near Cado-min to Luscar, a distance of six miles. Upon completion of this spur line, production commenced at the Luscar mine. Thus, before a mine could start producing it was necessary to have a rail link to the markets.

Without exception the early settlement was located within walking distance of the mine. This rule is well exemplified by noting the case of Robb¹⁴ where two mines

¹⁴ The settlement of Robb is really composed of two settlements, Lakeside and Bryan. Mile 32 is located 32 miles by rail from Bickerdike.

developed at Mile 33 (Lakeside) and Mile 32 (Bryan) on the railroad. In the early days a company built not only the mine buildings but also the accommodation for the workers. The result was company towns which were completely controlled by the company owning the nearby mine. In the case of Robb, two different companies owned the two mines, companies which were in competition with each other. Hence, no collaboration occurred and two separate settlements were the inevitable result. Similarly, three different companies were involved in the Sterco-Coal Valley-Foothills area at Mile 47, 48, and 50, respectively, in the East Arm. Once again, each company built and owned the settlement next to each mine. At the time, it seemed impractical from the point of view of the companies to build one large settlement instead of three smaller ones. With one large settlement the employees would have farther to walk to work. Secondly, each company would not have absolute control over the affairs of each town, a type of control which was valuable in removing undesirable people, such as labour union trouble-makers, from the town.

As long as the company owned the houses, the houses looked shabby and dull-looking from the outside. When the companies began to allow private dwellings to be built in their towns, better quality homes, often complete with brightly painted exteriors, began to dot the landscape.

This, however, did not occur until the 1930s and 1940s.¹⁵

A typical company town between 1911 and 1922 would include the following buildings:

1. general store.
2. hotel.
3. boarding houses or bunkhouses for single men.
4. hospital which resembled an ordinary miner's house from the outside.
5. community hall and/or movie theatre. In the early days the community hall often was the scene of dances, moving pictures, church services and school classes.
6. barber shop and pool hall.

The only roads constructed in the region between 1911 and 1922 were local wagon roads connecting settlements such as Sterco, Coal Valley, and Foothills. These were constructed by the mining companies in the summer when many of the miners were redundant. Construction of additional tipple facilities, bunkhouses and stores also took place, by and large, during the months of July and August when the weather was most favourable and when coal production was at its lowest level in the year. Because roads were few and were of a local nature, there were few motor cars present. This situation persisted essentially unchanged until after the Second World War when a road link was put

¹⁵ J. Roberts, Recollections of the Alberta Coal Branch, Unpublished article, 1966, p. 3.

through to Edson.

Settlements and Settlement Patterns Prior to 1945

This topic is subdivided into three areas of discussion: the physical site on which a settlement was built, the nature of the spacing between the settlement and the mine, and segregation of homes within a settlement. Coal-spur is treated separately and in a different manner from the other settlements since its continued existence was not dependent on the presence of a nearby coal mine.

The location of buildings in a settlement tended to be haphazard due to the settlements being sited in narrow valleys or in comparatively rolling and dissected uplands. Only in the case of Cadomin does one see a semblance of a rectangular grid system. Cadomin was located beside the McLeod River on a fairly broad, gravel-covered floodplain (Photograph 36). Had the Pacific Pass Company mine at Lovett developed to as large a scale as the Cadomin mine, the settlement of Lovett might have resembled that of Cadomin in many respects. With the exception of a number of shacks located on the banks of the Lovett River, the settlement was sited on a flat meadow about one-half mile from the mine and the Lovett River. Most of the houses were built in two rows which were located on the northeast edge of the meadow (Photograph 2). Scattered through the rest of the meadow were no more than twelve small log houses.

The settlements of Mountain Park, Luscar, Mercoal,

Robb, Sterco, Coal Valley, and Foothills were located on rolling terrain, and their settlement patterns reflected this irregularity. Mountain Park, nestled at 5825 feet above sea level¹⁶ in a picturesque basin, had the most scenic site of any settlement in the region¹⁷ (Photographs 15, 16, and 18). At Luscar the mine was pinched into a narrow valley formed by Luscar Creek, and the houses stood close by perched on the surrounding uplands (Photograph 41). In and around Mercoal there was much swampy land near the creeks which was not drained because of the cost involved. Instead, settlement tended to locate on the more rolling uplands (Photograph 13). At Mile 33, the Lakeside Coal Company built most of its company town along the tortuous course of the Embarras River in its narrow valley (Photographs 26 and 27). At Sterco, Coal Valley, and Foothills there was also much undulating terrain.

As a general rule, there seemed to be very little forethought given to some of the problems which might result from the settlement being so close to the mine. At Sterco, Coal Valley, Foothills, and Mercoal the railroad and/or slag heaps were the only barriers separating the settlement from the mine (Photographs 7, 9, and 11). These settlements appeared to have been originally constructed with little

¹⁶ Pers. comm. J.D.B. Brown, Edmonton, May 8, 1967.

¹⁷ For many years Mountain Park had the distinction of being situated at the highest elevation of any town in Canada.

regard for the factor of air pollution from the coal dust. The factor of accessibility to the mine seemed to override considerations of locating the settlement upwind and more than one-half mile from the tipples or slag heaps. At Sterco and Coal Valley with their extensive slag heaps resulting from strip mining, the air pollution problem must have reached considerable proportions. However, as many Coal Branchers who worked there during the Depression will say, enduring the presence of coal dust in the air was better than having no job. In contrast, the Mountain Park mine was located one-half to one mile southeast (downwind) from the town, so that a person entering Mountain Park would see the settlement first and the mine buildings later. From 1911 to 1945 before the advent of strip mining in the area, Mountain Park was relatively free from air pollution. This was an exception to the general rule concerning the degree of air pollution in the settlements of the region.

There was some evidence in the settlements of segregation of living quarters of the mining supervisory staff from the houses of the rest of the population. The mine manager's residence at Lovett was a large house complete with two wide verandas and two chimneys (Photograph 6). It was located one-half mile from the other houses. At Cadomin and many of the other settlements, the houses of the supervisory staff were separated from the rest of the town by woodland, a road or by some other divider

(Photograph 38). These staff houses were usually the first to receive running water and, in general, were designed in such a manner in keeping with the special status of the managerial staff. There were exceptions to this general rule of the supervisory staff living away from the other houses in a settlement. For example, the supervisory staff at Mercoal were housed in dwellings adjacent to one another but not separated from the rest of the town by any type of divider.¹⁸ On the other hand, Mercoal had an ethnic separation which was quite unique in the Coal Branch since ethnic groups in the other settlements tended to live side by side.¹⁹ On the hill to the northeast overlooking the rest of Mercoal, there were a number of houses occupied by people of Ukrainian descent. These people preferred to keep cows, horses, chickens, and other domesticated animals, so it was quite natural for them to be separated from the rest of the settlement. Mountain Park had two residential districts which appear to have no explanation for their separate existence. One district was composed of the "long row" and the "short row" of houses (Photograph 19) where many of the homes were two-story structures, something generally unheard

¹⁸ Pers. comm. G. Conger, former resident of Mercoal and Schoolteacher at Robb, Peers, Alberta, June 12, 1967.

¹⁹ In spite of the many ethnic groups represented in each settlement and the special status of the supervisory personnel, most people "got along well" with their fellow residents.

of in the Coal Branch. North of this district was a section of Mountain Park known as "shacktown".

It must be pointed out, however, that, during the period of construction of the original mine and mine buildings, the settlements in the region were composed of tents and temporary shacks (Photograph 20). Some of these tents and shacks dotted the landscape for many years afterwards, so that the "well-planned"²⁰ and "nice-looking"²⁰ settlement of Mountain Park, for example, was not a valid description of how the town looked prior to, say, 1915.

Not all of the settlements in the Coal Branch owed their continued existence from 1911 to 1945 to the presence of a coal mine nearby. Coalspur was an important railroad centre and was the headquarters of the Brazeau Forest Reserve (Photograph 22) by virtue of its location at the junction of the Luscar and Mountain Park branch lines of the C.N.R. A roundhouse and railroad sheds were used to repair railroad cars and engines (Photograph 22). Because trains bound for the East Arm, West Arm or Bickerdike always stopped at Coalspur, the hotel (including beverage room) and pool hall were busy places. This business was not profoundly affected by the closure of the Yellowhead mine in 1922 since the mine had been idle much of the time during its existence. Table IV in the Appendix reveals

²⁰ These were terms used to describe their town by former residents of Mountain Park who were interviewed by the writer.

that 1914 was the year of peak production and employment, production being 75,728 tons and the mean monthly employment ranging from 136 to 286. However, only two years later there was no production and no men were employed.

As with the railroad repair shops, Coalspur was a strategic spot in which to locate the forestry headquarters about 1925 whose rangers and lookout men patrolled the entire Coal Branch. At various times between 1925 and 1945 ranger stations and lookout stations were established near Cadomin, Mountain Park and Lovett. Thus, the settlement of Coalspur had unique features that differentiated it from other settlements in the Coal Branch in terms of landscape features.

The Marks of Coal Mining and Processing on the Landscape

Since the coal mining industry was an economic activity that contributed largely to the distinctiveness of the Coal Branch as a geographical region, one should discuss in some detail the marks of coal mining and processing on the landscape before 1945. Such a discussion will focus upon mine buildings and entrances, strip mines, and the disposition of mine wastes as well as the factors which influenced the type and amount of facilities and heaps of refuse on the landscape.

The amount of capital invested in a mining enterprise affected to a considerable degree the types of coal processing facilities built. This statement can be

illustrated by reference to the change in ownership in 1927 at the Lakeside mine and its subsequent effect on the coal processing facilities. Prior to 1927 the mine was operated by a group of Serbian miners as a "community" or "co-operative" mine in which each miner (there were about fifty of them) owned a share of the mine.²¹ Coal was mined on the east side of the Embarras River and was moved via one-ton mine cars to the processing facilities located on the west side of the River on the brow of a hill overlooking the valley (Photograph 23). Two small hoists which were operated from a small power plant nearby moved the mine cars up the west slope of the valley to the top of the tippie. The coal was dumped on a screen which crudely separated the lump coal²² from the rest of the coal. The coal was then loaded by shovel onto box cars sitting on a rail siding. The siding had a capacity for handling only three box cars at a time. Mr. W. Foster estimated the cost of the plant at \$5,000 to \$6,000.²³ In contrast, the processing facilities built in 1930 by the Lakeside Coal Company, which had con-

²¹ Before 1927, this mine was known throughout the Coal Branch as the Balkan Mine.

²² The various sizes of coal were defined in the following way:

lump coal	4-8 inches in diameter
egg coal	2-4
stove coal	1.25-2
stoker coal	0.5-1.25
slack	less than 0.5

²³ Pers. comm. W. Foster, Mine Manager of the Lakeside Coal Company from 1927 to 1944, Wabamun, Alberta, July 11, 1967.

siderable capital available for investment and which owned several other mines in the province, can be seen by examining Photograph 24 to be a much costlier and more modern plant. A trestle 200 to 300 feet long spanned the top of the valley from the adit²⁴ of the mine to the tippie, the latter being located some 400 to 500 yards north of the old plant along the railroad tracks. Photograph 24 indicates in the foreground the wash house and power plant (with the smoke stacks) containing boilers and hoist. The mine cars were hoisted across the trestle to the headframe. The headframe had a system of ropes connecting it with the hoist (not shown in photograph). The mine cars dumped the coal into the crusher located immediately north of the power plant and trestle. A conveyor belt then transferred the crushed coal via a chute to the screening facilities located in the tippie. At this point the coal was separated into lump, egg, stove, and fines.²⁵ The lump, stove, and egg coal were loaded onto railroad cars while the rest of the coal went to the top of the tippie where it was separated into nut coal, stoker coal, and slack. The nut and stoker coal were then loaded onto railroad cars via mechanical

²⁴An adit is a nearly horizontal entrance to a mine.

²⁵Fines included all coal which passed through the screen. The size of coal comprising the fines varied according to the porosity of the screen, which varied from tippie to tippie.

loaders. The cost of these buildings was about \$250,000.²⁶ Conspicuously lacking were dry or wet washeries. These were usually confined to the more highly capitalized ventures at Sterco, Coal Valley, Cadomin, Luscar, and Mountain Park. In addition, the coal at Robb, Coalspur, and Mercoal was a harder coal than elsewhere in the region so that the amount of dust and fines to be removed was less.

One of the most modern tipples was the one constructed at Mountain Park in 1938 (Photograph 17), and which continued to operate until the closure of the mine in 1950. The coal processing facilities here included all those that were present at Lakeside plus a wet washery and a dry washery. It is noteworthy that the tipple alone at Mountain Park cost about \$250,000. The coal cleaning facilities at the steam coal mines at Cadomin, Mountain Park, and Luscar were essentially similar to one another so that only the Cadomin facilities will be discussed in detail.

The Cadomin Coal Company operations resembled those at Mountain Park and Luscar, in that mines were opened up on both sides of the valley. At Cadomin the first mine was opened up in 1917 by horizontal entries from river level on the east side of the McLeod River valley. When the entries had advanced 4,000 feet and 280,000 tons of coal had been

²⁶ Pers. comm. W. Foster, Edmonton, July 11, 1967.

taken out, the mine was abandoned due to a fire.²⁷ The effects of this fire are shown in Table IX in the Appendix which shows a decrease in production from 161,432 tons in 1919 to 65,443 tons in 1920.²⁸ A second mine was opened in 1920, likewise by horizontal entries in the coal, but on the west side of the valley. The entries had been driven 6,500 feet and 610,000 tons of coal had been extracted when this mine was also lost by fire about 1925.²⁹ In 1922 before the second mine had caught fire, a third mine was opened on the west side of the valley. This mine was operated from 1922 until 1938 with an output of some 4,800,000 tons of coal. It was closed because of the distance from the workings to the portals (17,000 feet in 1938) and because of the possibility of cave-ins from above. After 1938 mining was carried out on both sides of the valley from new mines opened up. From 1917 to 1945, approximately eighty per cent of the

²⁷ N. Melnyk, "Lower Level Operations in a Thick Steeply Pitching Seam", Transactions of the Canadian Institute of Mining and Metallurgy, 1942, p. 210.

²⁸ A fire in a coal mine cannot usually be extinguished by flooding a burning coal seam. The usual procedure is to seal off the area or panel on fire with concrete to prevent the fire from spreading to other coal areas and to reduce the amount of oxygen reaching the fire. The fire will continue to burn until the supply of air (oxygen) is insufficient to keep the fire going. A fire in a mine, therefore, lasts for several years, making it impossible to resume operations in or near the affected area for ten years or longer, depending on the amount of coal affected and the amount of air continuing to feed the fire.

²⁹ N. Melnyk, op. cit., p. 210.

Cadomin output went to the railroad.³⁰ During the Depression from 1930 to 1935, the Cadomin Coal Company maintained the steadiest and highest output of any of the mines in the Coal Branch. The ability of the company to maintain their industrial and domestic coal sales to as much as twenty-five per cent of output contributed to their amazing production record during the Depression.³¹

The preceding discussion of the history of the company and its production forms a useful backdrop, against which discussion of landscape changes at Cadomin can be discussed with some perspective.

Upon examination of Photographs 31, 33 and 34, one immediately notices that the processing facilities were found on both sides of the McLeod River. The link between the buildings was a trestle, along which mine cars shipped coal from the west side to the east side of the River where the coal was eventually loaded onto railroad cars. The original mine buildings were located on the east side where the first mine was opened. However, with the limited room for expansion on the east side and with the advent of the exploitation of coal seams on the west side, an important part of the coal processing operation came to be centred on the west bank after 1920. The tallest structure on the west side was the headframe (Photographs 33 and 34), which

³⁰ Pers. comm. N. Melnyk, Mine Manager at Cadomin from 1914 to 1948, Edmonton, July 6, 1967.

³¹ Loc. cit.

was basically a pulley system with two bicycle wheels fourteen feet in diameter. These were used to hoist mine cars up and down the vertical shaft which was 826 feet in depth.³² The coal-filled mine cars were hoisted up the shaft, and the coal was dumped into a 100-ton bin, moved down a chute with a capacity of 200 tons and then transferred from the chute across the River to the tippie (Photograph 33). In the early 1940s a wet washery was constructed immediately north of the headframe and west of the office near the spot in Photograph 33 where a jet of white steam is emanating from a small power plant. The coal was washed in Vissac jigs (capacity of 240-400 tons per day) and then dried in the same building. About fifty yards south of the mine adit (which is next to the bottom of the chute in Photograph 33) was the wash house. Fifty yards east of the wash house was a large garage in which trucks were stored.³³ The garage and office were located on land built up from mine wastes. This meant that the floodplain of the River was artificially constricted at this point. As a result, the velocity and discharge of the River were increased to a sufficiently high level so that bridges at this point had to be built with concrete pillars.

³² Pers. comm. N. Melnyk, Edmonton, July 6, 1967.

³³ Trucks were used extensively by the Cadomin Coal Company when the Company started mining at their Gregg River mine, the west mine (four miles from the processing facilities up the west mine road), and the stripping operation east of Cadomin.

After the coal had been wet washed, it was transferred across the River to the tipple which was located behind (east of) the power plant. The power plant comprised the two buildings from which smoke is emanating in Photograph 31. The specifications of the customer would determine whether or not the coal would be sent through the air cleaning plant (capacity of 300 to 400 tons per day) located to the north of the tipple. The coal was then sent through the tipple where it was screened into various sizes, thence to be loaded via mechanical swivel loaders into boxcars.

The early and late coal processing plants at Lakeside and the plant at Cadomin provide a cross-section of the facilities used to handle coal, which in the case of Lakeside was to be used for domestic purposes and in the case of Cadomin primarily for steam coal purposes. The type of coal processing facilities, therefore, were mainly a reflection of the type of market(s) to which the coal was destined and the degree of capital investment in the operation. The type of market was in turn dependent on the quality of the coal before processing. For example, any orders for domestic or industrial coal given to Luscar Coals Limited were always filled from their Mountain Park mine, which had better quality coal for both this market as well as the railroad market.³⁴ On the other hand, there were at Luscar greater

³⁴ Pers. comm. A.C. Hnatyshyn, General Superintendent of Luscar Coals Limited from 1929 to 1946, Drumheller, July 14, 1967.

coal reserves which were more accessible compared with Mountain Park.

The operations at Sterco and Coal Valley resembled the Cadomin, Mountain Park, and Luscar operations in that there was a large capital investment, and the market for their coal was mainly the railroad. The populations and types of settlements were comparable. Even the coal processing facilities were similar since, although the strip-mined coal at Coal Valley and Sterco was of inferior quality,³⁵ the C.N.R. prior to 1945 did not insist on a standard of coal which necessitated more elaborate and expensive cleaning facilities. This insistence was to come after 1945. The improvement of coal processing facilities at Cadomin, Mountain Park, Luscar, Coal Valley and Sterco immediately prior to and during World War Two was primarily

³⁵ The following figures were obtained from proximate analysis of mine run coal:

	Coal Valley-Sterco	Mountain Park	Luscar	Cadomin
Moisture (per cent)	8.0	2.5	2.5	2.5
Ash	13.7	12.7	13.1	13.1
Volatile matter	31.7	27.1	20.8	25.4
Fixed Carbon	46.6	57.7	63.6	59.0
Total	100.0	100.0	100.0	100.0
Calorific value in British Thermal Units per pound	10,500	13,010	13,025	12,915

(E. Swartzman, Analysis Director of Canadian Coals, 1953, pp. 87-90; 131-133).

a response to a sharply increased demand for coal by the railroad coupled with an inability to obtain additional miners due to the need for men in the armed services. Hence, the solution was greater mechanization both underground and in the surface plant facilities. The increasing cost of labour was also a factor in bringing about this mechanization which continued unabated after 1945. The quality of coal was not a factor beyond the basic standards outlined previously, since the railroad during World War Two needed all the coal that the mines could produce. Hence, the mines, by and large, ran at full capacity during the war.

The Lumbering Industry and other Economic Activities

The cutting and processing of timber in the Coal Branch has never been exclusively for the supply of the coal mines. For example, between 1952 and 1957 R. Craig's operation was shipping 2,500,000 board feet of lumber per year out of the region while supplying only 250,000 board feet of mine props to the Luscar mine.³⁶ Prior to 1952 the proportion of timber shipped to the mines was only somewhat greater. Much of the timber has been exported to points as far away as the Northwestern United States. Timber cutting prior to 1945 was mainly confined to two individuals who

³⁶ Pers. comm. T. Melnyk, a former employee of R. Craig, Edmonton, July 10, 1967.

were independent of one another and their employees. R. Craig supplied timber mainly for the Cadomin mine while R. Spanach supplied timber for the Luscar, Mountain Park, and Mercoal mines.³⁷ P.A. Robb, an early and famous pioneer of the region, cut timber for Lakeside for a number of years in the 1930s and early 1940s. At first, the mines imported all of their mine timbers from British Columbia. B. C. fir was a popular type of tree used inside the mine. However, from the 1920s most of the mine timbers were cut locally because of the lower cost involved. Mine props were obtained from local fire-killed timber.³⁸ Of course, from the beginning of development of the Coal Branch, lumber for the mine

³⁷ Neither of these individuals ever formed a company per se. In fact, Craig's supply of timber to the Cadomin mine from 1925 until 1952 was on the basis of a verbal agreement. No written contracts were ever completed between Craig and the Cadomin Coal Company. Employment in Craig or Spanach's camp was seasonal for most of the men. The season of greatest employment was during the winter when cutting took place. This coincided with the period of peak employment in the coal mines, so that there was little seasonal movement from the mines to the lumber camps, and vice versa. Preparation of timber for shipment usually took place during the spring and early summer. Employment never exceeded fifty men at the Craig operation. Of these fifty men, eight or nine were employed the year round. In the East Arm a somewhat different situation existed in that the mining companies had surface timber rights in the areas near their mines and had redundant miners tap this timber in order to satisfy the needs of the mines and company town.

³⁸ Fire-killed timber had no leaves or other green parts left alive by the fire, but had solid trunks and little moisture remaining in the trees. These characteristics of fire-killed timber made it excellent for use as mine props.

buildings and settlements came from the local area almost without exception.

Certain buildings were constructed in association with the presence of the lumbering industry. After Mr. Craig moved his whole operation (including a saw mill) from Whitehorse Creek to Wampus Creek in 1932, he constructed a planer mill at the junction of the Wampus Creek road with Highway 47 (Map 5). Since the planer mill was not alongside the railroad, Craig had to ship his dressed timber two miles to Fidler where a railroad siding and buildings were constructed by the C.N.R. in order to handle Craig's products. Spanach held timber leases near Trapper Creek west of Wampus Creek. Both Craig and Spanach had portable saw mills which were moved periodically to be near the actual timber cutting. Craig's planer mill, however, was a permanent structure set on a concrete foundation. Thus, the lumbering industry in the region prior to 1945 was essentially in the hands of small-scale operators who supplied timber to the mines and to outside markets. Discussion of the entry of North Western Pulp and Power Limited of Hinton into the domain of the small operator after 1945 is best left to Chapter V.

Other economic activities made very little impact on the landscape. There was intermittent trapping by a few individuals. The same could be said of commercial guides, hunters, fishermen, etc. Modest log cabins were

constructed by these individuals, usually near water courses. Forestry officials also had cabins located in many places in the region. The Coal Branch was in the Brazeau Forest Reserve whose headquarters was located on the southern outskirts of Coalspur. The headquarters was not moved to Robb (where it is presently located) until after World War Two. The forestry people also had a group of buildings located on Greasebone flats just north of Cadomin. It is apparent that coal mining and, secondarily, lumbering were the activities which chiefly affected the landscape in the Coal Branch.

Relationship of the Various Ethnic Origins of Coal Branchers to the Landscape

One of the most pronounced features of any of the settlements in the region was the closely-knit character of its inhabitants regardless of ethnic origin. There was little or no evidence of separate districts established in or near a settlement and based on ethnic dislike or antagonism. To be sure, for example, Mercoal had its Ukrainian district on the hill to the northeast, but this was more a matter of convenience than anything else since various domestic animals were kept and needed room to graze. In addition, certain mines had a certain ethnic group predominating. Coal Valley contained many people of French origin. A company policy decreed that at least seventy-

five per cent of the miners must be French.³⁹ At the Lakeside mine at Robb, people of Serbian origin predominated, as was previously mentioned. At the other mines the policy was to hire men who had the needed qualifications and experience in mine work. No ethnic preference appeared to be shown, as indicated by the ethnic diversity of the miners hired at these mines and by the numerous conversations that the writer has had with Coal Branchers. With the abolition of the co-operative mine at Mile 33 in 1927 and with the demand for miners at Coal Valley during World War Two, the preponderance of one ethnic group at these two mines came to be reduced. A look at the names of the supervisory staff hired at the various mines reveals that, in a similar fashion to the hiring of miners, these were hired regardless of ethnic background. This last statement applied also to Coal Valley and Mile 33 even when the latter was a Serbian co-operative mine.

Development of a Community and a Regional Consciousness

The fact that everyone in a town knew everyone else meant that people cared about and identified with each other in times of mining disasters or other calamities. The Coal Branch was spared of any major mining disasters

³⁹ The Company's shareholders were people of French descent. At other mines such as Luscar and Mountain Park where the important shareholders were people of Scottish descent, this had no effect on the ethnic origins of people hired.

such as befell other coal mining areas.⁴⁰ By their very nature, the strip mines at Coal Valley and Sterco could not cause the deaths of many people at one time. However, at Cadomin, which was known as the most explosion-prone mine in the region, the potential was there for a repeat of the Hillcrest catastrophe. Up to six men were killed at one time at Cadomin or elsewhere, but this did not affect in a major way the continued functioning of any of the mines. However, the mere fact that tragedy could and did strike periodically meant that it was to the benefit of all to band together in such ways as rescue teams, volunteer fire brigades, etc.

Until the late 1940s the settlements in the Coal Branch were isolated by road from the rest of the province and, in many cases, from each other. In this situation it was natural for the Coal Brancher to identify closely with other people in his town.⁴¹ A community consciousness was built up via such activities as inter-community competitions. One notable example was the sports days held on three weekends per year in the West Arm with teams from Mountain Park,

⁴⁰ For example, at Hillcrest in the Crow's Nest Pass of Alberta in 1914 a mine explosion killed 188 miners, and at Fernie various mine disasters accounted for the loss of 163 men from 1898 until 1958 when the mine was closed.

⁴¹ A similar situation existed in many settlements of comparable size in the Canadian Prairies.

Luscar, and Cadomin competing against one another. These three communities were short distances apart from each other and were connected by rail and by a road which was passable only in dry weather. Prior to 1945 the people in the West Arm had little to do with the people in the East Arm or at the Head of the Branch, and vice versa. The term "semi-isolated" is a good way to describe the situation since most residents would leave the region for weekends only once or twice per year with the exception of holiday time. The settlements were essentially self-contained units serving a populace whose main interests centred in the settlement itself and its progress relative to that of other settlements in the Coal Branch. Therefore, the development of a regional consciousness⁴² was secondary to the development of a community consciousness.

The Appearance of the Landscape During the Second World War

The landscape after the initial construction period changed very little in some respects. Once a settlement was built its appearance changed little during the next twenty years, simply because, although expansion of production may have taken place, mechanization and increased efficiency of the miners meant that no large increases in employment were necessary. Therefore, the settlements did not grow

⁴² By this is meant the feeling that one is a Coal Brancher and identifies with other Coal Branchers. This idea will be pursued further in Chapter IV.

appreciably. Fires took a toll of houses and, in particular, hotels, but these were usually restored with very few changes. In the 1920s and 1930s recreational facilities were built in many of the settlements, facilities that included a sports field and a large covered rink usually located next to the school. In the larger settlements there were at least two churches, a restaurant, tailor shop and butcher shop, which supplanted some of the functions of the original community hall and general store. On the whole, however, the settlements retained their 'small-town' character until 1945.

The appearance of the mine buildings during the war, however, was considerably changed over that of even a decade before. More elaborate cleaning facilities, which would produce better quality products less consumptive of labour, were installed at a rapid rate during the late 1930s and into the 1940s.

By 1939 the small operators had left the scene with only two exceptions. These were the Bryan mine at Mile 32 and the K.D. Collieries Ltd.⁴³ west of Luscar. All of the small strip and underground mines southeast of Foothills in the East Arm had been abandoned by the time the Depression had run its course. A similar fate befell the Mount Cheviot Coal Company on Prospect Creek between Cadomin and Mountain Park. These small operations were undercapitalized, never

⁴³ The name is derived from the surnames of the two prospectors who started the mine, Klassan and Dennison.

at any time produced coal on a sufficient scale to compete with the larger mines, and often, as in the case of the Mount Cheviot Coal Company, located in areas where the quantity and quality of the coal was questionable.⁴⁴ All that was left of these operations by 1939 was some abandoned tipples (some were not torn down or burnt), slag heaps and strip pits of small magnitude.

The following settlements and mines were in existence during World War Two:

1. Mountain Park Coals, Ltd., (1911-), Mountain Park
2. Cadomin Coal Company Ltd., (1917-), Cadomin
3. Sterling Collieries Company Ltd., (1918-), Sterco
4. Foothills Collieries, (1918-), Foothills
5. Lakeside Coal Company, (1918-), Robb
6. Canadian Collieries Resources, (1920-), Mercoal
7. Luscar Coals Ltd., (1921-), Luscar
8. Coal Valley Mining Company Ltd., (1922-),

Coal Valley

9. North Western Coal and Oil Company (Bryan mine), (1924-), Robb

10. K.-D. Collieries Ltd., (1932-), Kaydee west of Luscar

The appearance of Sterco and Coal Valley during the war was considerably changed compared with that twenty years before. Strip pits had been dug up to 300 feet below the

⁴⁴ Pers. comm. J.D.B. Brown, Edmonton, July 6, 1967.

surface, and large slag piles occupied the landscape for about three miles along the railroad track. Large steam shovels and draglines were used to excavate the coal (Photograph 42). The coal was then transferred to one-ton cars which were pulled by small engines to the processing facilities.

At the underground mines, on the other hand, the changes in the landscape were not so striking. Granted, there were also large piles of slag near the mines by this time, but not to the same degree as with the strip mines. Stripping at Luscar, Cadomin, Mountain Park, and Robb was not to begin until near the end of or after World War Two.

During the Second World War the population, employment, and coal production rose to a gentle peak to which it was never to return (see Tables in the Appendix). The population of Cadomin, for example, rose to 1200 from 800, and that of Mercoal from 200 to 800.⁴⁵

World War Two was a turning point in the fortunes of the Coal Branch, a turning point that was not recognized by most Coal Branchers until dieselization by the C.N.R. made ghost towns out of most of the settlements in the region less than a decade after the close of the war.

⁴⁵ A. Bergman, Coalspur and Mercoal - A Changing Settlement Pattern, Unpublished Geography 525 Field School Paper, 1964, p. 12.

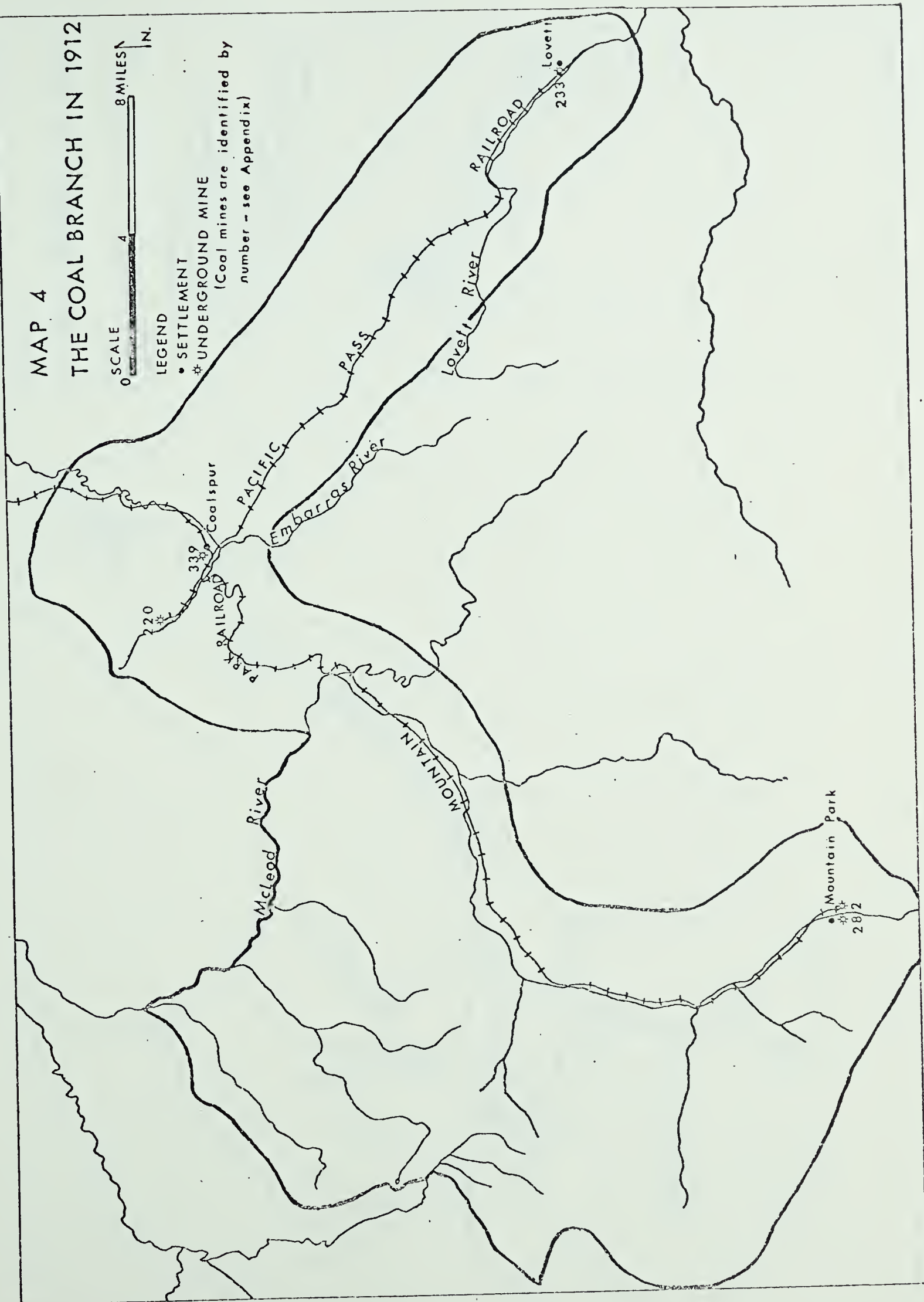
MAP 4

THE COAL BRANCH IN 1912



LEGEND

- SETTLEMENT
 - ✱ UNDERGROUND MINE
- (Coal mines are identified by number - see Appendix)



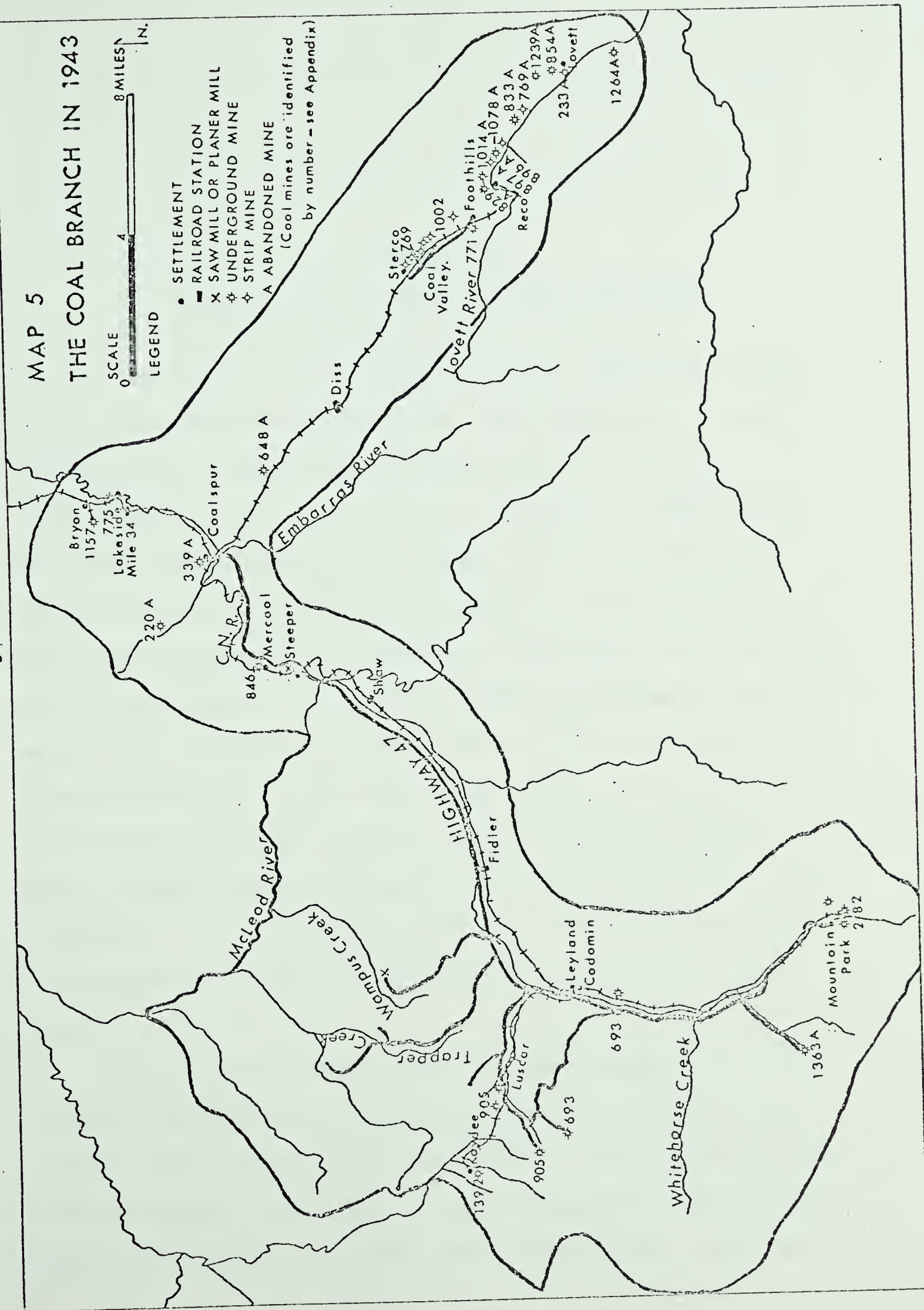
THE COAL BRANCH IN 1943



- SETTLEMENT
- RAILROAD STATION
- ✕ SAW MILL OR PLANNER MILL
- ⊗ UNDERGROUND MINE
- ⊙ STRIP MINE

A ABANDONED MINE

ol mines ore identified
by number - see Appendix)



CHAPTER IV

THE COAL BRANCH BETWEEN 1946 AND 1959

The most striking change in the landscape during these years was the beginning of the appearance of derelict towns and coal processing facilities on the landscape as coal mining in the region sharply declined in importance. The key factor causing this decline was the conversion to diesel-using from coal-using locomotives by the C.N.R. By 1956 this conversion was virtually completed. The cessation of mining activity at Mercoal in 1959 signalled the end of major coal production in the region. In 1946 Lakeside Coal Company became the first important mine to close since the Lovett mine in 1919. Having, in most cases, no other raison d'être, whole settlements and coal mines alike were abandoned. Their buildings were left to rot, were burnt down and plowed over, or were moved away in part or in whole.

A second striking change in the landscape was the advent of extensive strip mining in several areas of the region besides Coal Valley and Sterco. Near Mountain Park, Luscar, Cadomin, and Bryan, large stripping operations were begun between 1944 and 1950. The stripping at Luscar was

carried on to such an extent that large portions of coniferous forest were replaced by gaping holes which extended 200 feet or more into the ground (Photographs 44 and 45).

Ghost Towns

In Chapter III the point was made that most Coal Branch settlements depended for their existence on the steady operation of a nearby coal mine. Seasonal curtailments in production or seasonal mine closures could not cause a mass exit of coal miners from the scene, for coal miners tend to be an optimistic people with respect to a personal assessment of the future of 'their' town and mine. Very few mines in the region provided steady year-round employment for all of their employees. Hence, many of the people remained in the region's settlements for up to a year after the mine had ceased operations in the hope that the mine would reopen. For this reason, the closure of a mine did not necessarily mean that all of the inhabitants moved away from the nearby settlement as soon as possible. Temporary jobs in the lumbering industry or in other regional coal mines were often taken on, but the families often remained behind for some time in the settlement. In addition, only one to three months notice of impending closure was normally given, resulting in a delay in the moving out process, particularly if the mine closed partway through the school year. A substantial exodus of people always took place during the summer following the closure of the mine

due to the important factor of education for the children of the miners.

The factor of labour immobility, common to all coal mining areas, affected the degree to which Coal Branchers were willing to leave their homes. By 1946 many of the inhabitants had lived in the region for twenty years or more, were nearing retirement age, and could possibly not have found jobs elsewhere because of their age. These people were not anxious to leave their homes (which many of them owned by now) and their town to learn, in many cases, a new trade and to live in a place which was completely strange and foreign to them. The pre-1945 isolation factor definitely operated in these cases. Such people, however, needed food, and thus depended on the continued operation of the general store in the settlement if they were to continue to live there. Inevitably, the general store did close within three years of the mine closure (presumably because of insufficient business), providing that some other economic activity did not maintain the population of the settlement at a sufficient level to justify its continued operation. Such was the case at Cadomin after 1956 when Inland Cement Industries commenced limestone operations two miles south of the settlement. Also at Robb, employment at nearby timber-cutting operations provided a less stable (compared with Cadomin) but still significant contribution to the economic base of the town. However, sooner or later,

the towns of Mountain Park, Luscar, Mercoal, Sterco, Coal Valley and Foothills were doomed to the status of ghost towns due to a loss of the only means of sustaining these towns economically, namely, the mines. Therefore, willing or not, families were forced to move.

The term "ghost town" implies that some or all of the buildings are still standing, although not inhabited by anyone or by only a small fraction of its former population. If such a definition be accepted, then the settlements of Mountain Park, Luscar, Sterco, Coal Valley, and Foothills did not remain as ghost towns for many years. Most of their homes and businesses were company-owned, so that the company moved or destroyed the houses soon after their inhabitants had moved away. The Government of Alberta adopted what the writer terms a 'back to nature' policy in that they encouraged owners of private dwellings to sell them to the Crown, or the Government set about destroying those homes whose owners had failed to renew their leasing arrangements with the Crown concerning the land upon which the houses were built.¹ Since some private owners held on tenaciously to their homes whether inhabited or not, it took several years for the settlements to be completely obliterated. In the case of Luscar, for example, the last houses were destroyed in 1964, eight years after the closure of the

¹ Pers. comm. J.D.B. Brown, Edmonton, July 6, 1967.

mine. In the other settlements the process was only somewhat faster.

After a mine closed, the surface coal processing facilities usually disappeared from the landscape before the town. In the case of Mountain Park, the possibility existed that part or all of the processing plant could have been moved to Luscar. Mr. A.C. Hnatyshyn estimates the value of the plant in 1950 at \$500,000 and the cost of re-locating it to Luscar at \$250,000.² However, not all of the buildings at Mountain Park would have been useful at Luscar; possibly only the tipple could have improved the operation at Luscar. Luscar Coals must evidently have felt that the move was not worthwhile economically, for the Company promptly had the plant at Mountain Park dismantled. The tipple was taken down piece by piece. Fishplates, bolts, spikes and other salvageable material were loaded onto box-cars and shipped to points outside the region. Concerning the dismantling of the processing facilities in the mining settlements, the power plant often remained as long as people remained in the nearby settlement as it was their only source of electricity. There was an initial efflux of people upon closure of the mine, resulting in at least fifty per cent of the houses being boarded up. At the end of the school year, most of the remaining homes, the

² Pers. comm. A.C. Hnatyshyn, Drumheller, July 14, 1967.

hospital, the school, and many of the businesses suffered a similar fate. At this point, the attainment of the status of a ghost town was only a question of time.

Declining Markets

It must be stressed that dieselization alone did not produce the ghost towns; the loss of the domestic fuel market to oil, natural gas, and other fuels as well as the failure to develop markets for the by-products of the region's coal must also contribute to the explanation for the sharp decline in coal production during the 1950s with its resultant effect on the landscape. To be sure, much study was undertaken by the Research Council of Alberta in Edmonton and by laboratories and testing centres outside of Alberta in order to determine economically feasible methods of manufacturing and using some of the by-products of coal. Because the mines at Foothills and Mercoal produced sizable quantities of coal for the domestic fuel market until 1957 and 1959, respectively, this suggests that the domestic fuel market underwent a more gradual decline than did the railroad market (Tables XI and XV, Appendix). In both the domestic and steam coal mines, as one mine closed down, much of its declining market was taken up by another mine in the region. For example, Luscar Coals Limited made the decision to close the Mountain Park mine in 1950, having realized that the market for steam coal had declined to a level whereby it was uneconomical to operate both mines

simultaneously, and that closing the Mountain Park mine would enable the Company's more-profitable operation at Luscar to produce coal for a longer period of time.

After World War Two, the demand for steam coal was not as great as during the war. This meant that the C.N.R. was in a position to demand better-quality coal from its mines in the Coal Branch. At Luscar the amount of fines in the coal was a troublesome problem in terms of transporting the coal to market and the C.N.R.'s demand that their engines only use coal of a certain minimum size. In the opinion of Luscar Coals Limited, the solution to this problem was to briquette the coal. Thus, from 1949 until 1956 a briquetting plant was in operation at Luscar.³ No attempt was ever made within the Coal Branch to coke the region's coal. Such coking plants were in operation in the Crow's Nest Pass in order to supply smelters chiefly in Western Canada and Western United States. The Coal Branch was much farther removed from these smelters than the Crow's Nest Pass.

Strip Mining

Strip mining was more capital intensive, less labour intensive, and, in many parts of the Coal Branch, was a cheaper method of producing coal than underground mining. As markets began to decline, the possibilities of producing

³ Shortly before the mine closed, a fire in January 1956 of unknown origin completely destroyed the briquetting and storage bins. No plans were made to rebuild.

coal profitably by means of underground mining became increasingly difficult. At Mountain Park, Luscar, Bryan, and Foothills the last two to five years of recorded production were essentially or even entirely from strip mines. At Cadomin, strip-mined coal assumed an ever-increasing proportion of the total production after 1945. In the Mountain Park-Cadomin-Luscar area strip mining became a practical proposition with the coal seams being thick and standing on end in places. However, at Robb the possibilities of successful stripping were less favourable, due to the increasing amount of over-burden that had to be removed as one proceeded from the outcrop along the seam which pitched at thirty-five to forty degrees.⁴ The quality of the stripped coal was relatively poor due to the coal seam being interspersed with bands of clay. The Bryan strip mine was located at the top of a ridge which sloped rather sharply on either side perpendicular to the strike of the seam (Photograph 43). The statement that "both the contour of the property and slope of the seams were favourable to efficient strip mining"⁵ at Bryan is at best only partially valid if one compares this operation with, say, one of the successful strip mines west of Luscar. However, compared with the

⁴ Pers. comm. W. Foster, Wabamun, July 11, 1967.

⁵ "Outstanding Development at Bryan Mine", Western Canada Coal Review, January 1952, p. 6.

undercapitalized venture of James H. Bryan, production after 1950 from the strip mine and secondarily from the underground mine was greatly increased. But this was only for a short time. The explanation for this erratic production in the 1950s was simply a question of some poor decisions taken by North Western Coal and Oil Ltd. and its successor in 1952, Bryan Mountain Coal Company Limited. The former Company invested \$250,000 in a tipples and also constructed a new power plant, machine shop, and various other buildings in 1950.⁶ The Western Canada Coal Review reported in 1952 that "building lots have been released to employees and present plans call for 64 homes, a community centre, and a playground (at Bryan townsite). The new school is now completed and occupied".⁷ Most of the production came from a strip pit which was located one mile north of the processing facilities.⁸ Mr. E. Aloisio has described the underground operation as having "too many mistakes which were intended to be mistakes".⁹ The opinion held by people like

⁶ "Robb Coal Mine to Start Producing", The Edmonton Journal, October 17, 1950, page not known.

⁷ "Outstanding Development at Bryan Mine", op. cit., p. 7.

⁸ This strip mine has since been closely bypassed by the forestry road between Hinton and Robb.

⁹ Pers. comm. E. Aloisio, former Miner and Fireboss at Lakeside Coal Company (1932-46) and McLeod River Hard Coal Company, Robb, June 13, 1967.

Mr. Aloisio, who were familiar with the company, was that this mining activity appeared to be a big promotional effort on the part of the owners to sell many shares on the stock market, realize a large, short-term profit, and then let the Company slip rapidly into bankruptcy. On the other hand the Bryan strip mine lasted at least as long as the Mountain Park and Cadomin strip mines and produced a comparable tonnage of stripped coal (about 300,000 tons).

The largest and most successful strip mines in the region were those operated by the Luscar Coal Company west of Luscar from 1945 until 1956 (Map 6). According to P.J. Cullimore, only a small part of the potentially strippable coal deposits had been exploited by 1956.¹⁰ Photograph 44 of the Cairn's strip pit gives an indication of the scarred landscape interspersed with dense forest in many places west of Luscar. There were extensive bubbles¹¹ of coal in this area which were close to the surface and hence ideal for stripping. Unlike the Sterco and Coal Valley operations prior to 1945, which used a dinkey¹² and one-ton cars to

¹⁰ Pers. comm. P.J. Cullimore, Executive Vice-president, Luscar Coals Limited, Edmonton, August 1, 1967.

¹¹ A bubble is a large concentration of coal formed from the overthrusting of more than one coal seam, which produces a globule of coal with a nearly vertical pitch.

¹² A dinkey is a small locomotive used to haul freight or shunt cars.

transport the coal from the pit to the processing facilities, trucks were used extensively. This meant that a network of roads had to be carved out of the landscape. At first, five to ten-ton trucks were used. Later on, trucks up to twenty-five tons capacity were used as the degree of capital investment in the strip mines increased. Strip mining in the Luscar area typified other areas in the region to the extent that huge scars disturbed the natural landscape to a far greater degree than any previous human activity.

This focus on the Luscar and Bryan stripping operations provides a cross-section of the types of strip mining possible and the various degrees to which the landscape has been modified between 1946 and 1959. In Chapter V description will be given of the appearance of abandoned strip mines on the landscape and of some of the changes which have occurred in these pits since they were exploited by man.

Lumbering Industry

In Chapter III it was pointed out that the lumbering industry had developed with the coal mining industry but was only partly dependent on the mines for its existence. Lumber, shiplap, and other processed timber was shipped during and after World War Two to Edmonton and as far east as Winnipeg.

The timber-cutting operations of Craig and Spanach shifted through time basically according to two factors: one was the exhaustion of the supply of marketable timber

held within the lease area, and the other was the closure of the mine to which timber was being supplied. Fire-killed spruce was in demand for use as mine props. Consequently, such timber located close to an underground mine was the first to be exploited and exhausted by Craig and Spanach before they moved their operations to new areas. Craig exhausted this type of timber in the Whitehorse Creek area by 1932. He had done the same near Wampus Creek by 1952, and completed his activities in the region near Antler Creek from 1952 to 1957. Spanach cut in more than one area at one time. He started cutting in the area of the K.-D. mine and also at Trapper Creek in 1937-38, abandoned the K.-D. operation before 1939, started cutting near Steeper south of Mercoal in 1941 and entered the Lovett area from 1947 until 1951.¹³ Spanach depended on the intra-regional coal mine market for greater than one-half of his production while in the case of Craig, most of his products were marketed outside of the region. During World War Two both Craig and Spanach built planer mills near Fidler and Steeper, respectively. Spanach's operations at Trapper Creek supplied the Luscar mine and hence ceased in 1956. His Steeper operation lasted until 1959 when the Mercoal mine was abandoned. Craig's move from Wampus Creek to Antler Creek

¹³ Mr. Spanach was killed in a lumbering accident in 1949. His wife took over the business and ran it on a smaller scale until 1959 as the Spanach Lumber Company.

about 1952 coincided with the closure of the Cadomin mine in the same year.

Although both Spanach and Craig produced railroad ties, shiplap, and various kinds of lumber in addition to mine props, these entrepreneurs had to be fairly selective with respect to the species and sizes of trees that they cut down. For mine timbers, spruce was preferred to pine. Mine props had to be six to eight feet in length and a certain thickness. This meant that many trees, particularly young trees, were left behind when these entrepreneurs were through in their lease area.

With the location of North Western Pulp and Power Limited at Hinton in 1956, this large company began to obtain large timber leases which included parts of the Coal Branch. Craig, who was by now over sixty-five years of age, recognized the problem of obtaining adequate timber leases and folded up operations although it is likely that he could have continued for several more years.¹⁴

The Role of Roads in the Breaking Down of the Isolation Barrier

The completion of Highway 47 between Edson and the towns in the West Arm did not produce great changes in the landscape but this event did have a marked effect on human activity in the region. After 1945 Albertans began to buy

¹⁴ Pers. comm. T. Melnyk, former employee of Mr. Craig, Edmonton, July 10, 1967.

automobiles at a rapidly increasing rate.¹⁵ With this trend came a demand from road-isolated regions such as the Coal Branch for all-weather road links with the outside world. Between 1945 and 1951 such an all-weather road link, Highway 47, was completed between Highway 16 (about seven miles west of Edson) and Mountain Park (Map 6). The road southwest from Robb was completed previously from Highway 16 to Robb, so that it was possible to drive from Mountain Park to Robb by the late 1940s. In the East Arm, however, an all-weather road was not constructed to Lovett or even to Coal Valley-Sterco until after these mines had ceased operations. The fact that six years of intensive work on Highway 47 was required before it was made passable suggests the difficulties to road building posed by the terrain. The completion of the road in 1951 did not mean though that Coal Branchers could enter and leave the region at will. Many stories were told of getting stuck or of "just getting through" in the 1950s from Edson.¹⁶ Spring floods and the spring thaw made driving in this season a hazardous undertaking. The important point to be grasped about the completed road links is that they heralded a new era of communication with the outside world. Community-conscious

¹⁵ The number of vehicle registrations in Alberta increased from 140,257 in 1945 to 318,812 in 1953 (The Canada Year Book 1955, p. 862).

¹⁶ Pers. comm. G. Conger, Peers, Alberta, June 12, 1967.

settlements began to think regionally.¹⁷ New friendships with people all over and out of the Coal Branch took on new importance while, in many cases, the close fraternization within a settlement began to break down. Therefore, the building of Highway 47 had a profound effect on the lives of most Coal Branchers and on the spatial movements of people.

¹⁷ This regional consciousness finds its expression today in the Coal Branch Association, an organization which promotes contact and fraternization among former Coal Branchers.

CHAPTER V

THE COAL BRANCH AFTER 1959

After 1959 limestone quarrying and lumbering surpassed the coal industry in importance.

This chapter begins with a discussion of the changes in economic activities which produced modifications in the landscape in the 1960s. This discussion will lead into a description of the present landscape of the region, including settlements and abandoned settlements, abandoned mine processing facilities, and abandoned strip mines. This will set the stage for a discussion of some of the future developments likely to occur in the Coal Branch.

Coal Mining

Mines at Coalspur and Mercoal produced coal in the 1960s on a very small scale. One-half mile east of Mercoal, the McLeod River Hard Coal Company operated an underground mine which produced 2,334 tons during its existence in 1963 and 1964. The operation removed vestiges of coal which had been left by previous coal companies (Table XV, Appendix). M. Vitally's underground mine at Coalspur produced 14,880 tons from 1960 until 1963 (Table XXIX, Appendix). In both

cases the processing and loading facilities¹ remain intact. The Chief Mine Inspector's Office of the Alberta Government has suggested to Mr. Vitaly that his mine be properly sealed off and abandoned, but so far, nothing has been done.²

Inland Cement Industries Limestone Quarry³

Since 1955, limestone mining has made a significant imprint on the landscape in the Cadomin area. During 1953 and 1954 detailed investigations of the limestone deposits in the area were undertaken. In 1955 processing and handling facilities were built in order to ship the limestone to Inland's cement plant being built at Edmonton. Initially, the limestone was blasted from the top of a mountain two miles south of Cadomin, loaded onto trucks, and hauled along a narrow switch-back road to the base of the mountain where the rock was crushed and then loaded onto boxcars. Since March 1966 a new approach was initiated which involved the removal of the crushing plant to the inside of this mountain. The main feature of the new approach is the use of gravity to transport limestone from 6200 feet to 5140 feet, which is

¹ The loading facilities are still to be seen in the centre of Mercoal near the railroad and the Legion hall (Photograph 13).

² In the process of abandoning an underground mine, all entrances to the mine are earth-filled, so that they are impenetrable. Mine shafts must be filled from top to bottom. The McLeod River Hard Coal Company mine has been properly abandoned.

³ In September 1965 Inland Cement Company Limited changed its name to Inland Cement Industries Limited.

the difference in elevation between the top and bottom of the mountain. The limestone is dumped into a nearly vertical trough 1,000 feet in length, which feeds the crusher at elevation 5300 feet. Up to 1,800 tons of crushed stone can be stored below the crusher, from which stone is conveyed horizontally to a railroad car loading bin located outside of the mountain⁴ (Photograph 39). The belt conveyor discharges into a 100-ton capacity surge bin located over the railroad tracks. Twenty-one cars are handled at one time with the air brake moving system.⁵ Prior to 1966, electrical power was generated by diesel with a 350 kilovolt-amp generator set. In January 1966 Calgary Power installed a new power line into Cadomin, and now all quarry operations requiring electricity are handled by this utility.⁶ Photograph 39 also shows a heavy material storage warehouse, maintenance garage, and office building. The latter also includes a small warehouse, washing facilities for the employees, and a small laboratory.

The markets for the processed product (cement) are concentrated mainly in the Edmonton area. Inland Cement

⁴ R.J. Gotts and M.T. Pero, "Cadomin Quarry Development", Paper (to be published) presented at the Annual Western Meeting of the Canadian Institute of Mining and Metallurgy in Calgary, October 1966, p. 2.

⁵ Ibid., p. 4.

⁶ Ibid., p. 5.

has only small markets in the Calgary area since Canada Cement Company of Exshaw is in a better location to serve Calgary. According to Pero, the cement produced at Edmonton is competitive in an area extending northwards from Edmonton, Jasper, Prince George, and Prince Rupert.⁷ This is the case even though cement plants located in Southwestern British Columbia have the advantage of a location on tidewater in terms of supplying such points as Prince Rupert.

The work force is certainly not large compared with the workers employed by the coal mining companies, but it has varied only little from 19 to 21 men. Of the 19 men presently employed, 15 live at Cadomin, 3 at Robb, and 1 at Mercoal.⁸ The former homes of the Cadomin Coal Company's officials house the staff and maintenance men of the Inland Cement Industries quarry (Photograph 38).

Lumbering Industry

The 1960s have seen North Western Pulp and Power Limited of Hinton dominating the lumbering industry in the Coal Branch. Areas under timber lease by the Company in the 1960s have extended as far as the Pembina River south of Lovett. Near Robb and Lovett, a small amount of timber has been cut by the W.G. Wagner Lumber Company mainly for North Western Pulp and Power (Map 6). The latter has now

⁷ Pers. comm. M.T. Pero, Quarry Superintendent, Cadomin, July 20, 1967.

⁸ Loc. cit.

blanketted most of the region with its leased holdings, so that the possibilities of another lumber company starting up operations are rather poor unless the new company works out some contractual association with North Western Pulp and Power. The W.G. Wagner Lumber Company has operated from 1950 until 1966 in the Coal Branch as well as in the Lesser Slave Lake area near Enilda, Alberta. Wagner has had to enter into an association with the Hinton-based Company which would enable the former to cut timber from the latter's leased area. Under this arrangement, Wagner processed timber and logs with a diameter in excess of four inches to make saw timber, railroad ties, etc., while he sold logs eight feet in length and less than four inches in diameter to North Western Pulp and Power.⁹ The Wagner Company had its saw mill and planer mill located in Bryan (Photograph 47). In 1966 the Wagner Company decided to consolidate operations in one area in Alberta, resulting in the Company abandoning its operations in the Coal Branch. All that remains of the lumber processing operation at Bryan are a sawdust pile, a cone-shaped incinerator, and some bunkhouses and storage sheds.

A Comparison of Robb with Cadomin (Photographs 27, 37, and 46)

The 250 people living at Robb today have more varied reasons for making their homes there than do the 90 residents

⁹ Pers. comm. R. Corser, Owner of Erith Tie Company situated between the Coal Branch and Edson, Edson, August 8, 1967.

of Cadomin. Employees of the quarry near Cadomin and their families account for the majority of Cadomin's population. The rest of the settlement's population is comprised of retired people, and one person each in charge of the general store, post office, and motel. About twenty residents of Robb work for North Western Pulp and Power at various camps¹⁰ located between Robb and Hinton. Another twenty are retired people. Two men living at Lakeside are employed by the Provincial Department of Highways doing road maintenance work along Highway 47 and the Forestry Trunk Road in the East Arm. Another three men work for Inland Cement at Cadomin. There are four rangers stationed at Robb. In the summer of 1966 the ranger stations at Cadomin and Lovett (one ranger at each) were abandoned, and their newly-constructed houses were moved to Robb. An additional ranger was added at this time, which increased the staff at Robb to four. This consolidation move may be partially explained by noting that the Government has had much difficulty in getting a ranger to live at Cadomin and Lovett, particularly the latter. The paucity of people and services is a serious drawback to having a ranger with a family stay on indefinitely in such isolated places. In addition, the use of two-way radios and the improved roads in the region have decreased

¹⁰ Such camps include Camp 23 and Camp 33 (Map 6), located north of the Coal Branch.

the need for rangers to be stationed at three different locations.

The service facilities at Robb and Cadomin are quite similar at present. Both have a general store. Robb had two general stores¹¹ until the spring of 1967 when one of the stores (which also had gasoline pumps) was destroyed by fire. Robb has the only gas station in the Coal Branch, a station which depends for about fifty per cent of its business on tourists and other visitors to the region. Before 1966 Cadomin had a gas outlet, an old-fashioned gas pump with the gallon markings etched on the glass at the top of the pump. This service was operated by the clerk from the post office across the road. The pump was removed in 1966, thus eliminating another landmark from the region. The post offices at Robb and Cadomin are located in buildings indistinguishable (except for the sign at the front) from the surrounding houses. Robb has a three-storied hotel which was built in 1946, while Cadomin has a small motel which was built in the 1960s. The hotel and the motel depend heavily for their business on tourists, hunters, and other visitors. Cadomin has a Legion hall while Robb has a community centre of similar size.

During the Second World War Cadomin had a population

¹¹ Both stores were moved from Mercoal after its mine closed in 1959.

of 1200 while Robb's population was never more than its present figure of 250. Therefore, one should expect that the present settlement of Cadomin should contain the types and sizes of buildings meant to serve a population of 1200. To be sure, many of the buildings have been removed or destroyed as a comparison of Photographs 36 and 37 demonstrates. The hotel and the newly-constructed school,¹² for example, were conspicuous landmarks on the 1948 photograph which are not there today. The covered skating and curling rink at Cadomin (still being used at present) finds no equivalent in Robb. Both Cadomin and Robb have one church building standing unused on the landscape, but unlike Robb, Cadomin contained three church buildings at one time. Thus, the landscape at Cadomin today is partially explicable in terms of a much larger population in the past, while this is not so in the case of Robb.

In contrast with Cadomin and the Lakeside part of Robb, the land which the Bryan townsite occupies is owned by a coal company, the Bryan Mountain Coal Company. In fact, Bryan is the only settlement in the region whose inhabitants pay rent to a coal company.¹³ Concerning the rest of the region, when a mine closed, the buildings in the nearby settlement owned by the coal company were either

¹² The Cadomin school had twelve grades and a staff of twelve teachers before 1952. The school at Robb today is a four-room school which has students up to grade eight.

¹³ This arrangement was very common in the early twentieth century in the Coal Branch.

sold to private individuals, moved or destroyed, and the land went back to the Crown (Government of Alberta). At present, home-owners in these settlements do not pay property taxes but pay a nominal rental fee to the Government each year upon receiving a Miscellaneous Permit which has to be renewed annually. Whether it be the Bryan Mountain Coal Company or the Provincial Government, the property tax or 'rental' is costing a home-owner under \$10 per year.¹⁴ This provides an additional answer¹⁵ to the question as to why there are so many retired people living in Robb and Cadomin. The same explanation applies to people who own summer homes at Robb, Mercoal, and Cadomin.

Mr. E. Aloisio suggests that the Coal Branch "is becoming a tourist resort" in the context of the increasing number of abandoned houses being converted into summer homes.¹⁶ For example, only two homes at Lakeside are occupied by permanent residents. Most of the other twelve houses are the summer residences of people who have formerly lived permanently in the region. Bryan, Mercoal, and Cadomin

¹⁴ At Lakeside the Miscellaneous Permit costs \$7 per year.

¹⁵ The other answers are that these people have lived in the region most of their lives, and that at least some of their close friends either live here or live close enough to the Coal Branch to make frequent visits to the region possible.

¹⁶ Pers. comm. E. Aloisio, Robb, June 13, 1967.

also contain these summer homes which may, in some cases, be confused with abandoned houses upon superficial examination since they often have their windows boarded up and their yards unkept.

Other Settlements

Most of the settlements which were thriving during the coal era are going back to nature. The completion of this process is only a question of time unless some attempt is made to preserve or occupy some of these buildings. At Mountain Park, Luscar, and Kaydee, all of the buildings which were constructed during the coal era are gone (Photographs 19 and 41). At Luscar the white tents shown in Photograph 41 belong to a drilling crew who are in the area to extract coal samples for Luscar Coals Limited, who have a potential customer for their coal in the Japanese iron and steel industry. This potential market will be discussed later in this chapter.

The settlement of Mercoal has a population of about ten people today, a sharp decline from a population of about 1000 in the 1950s. Of the present residents, four are railroad maintenance men, one is a quarry worker for Inland Cement and one is a house-mover. There were sixty-one houses, sheds, and businesses standing in Mercoal in 1964¹⁷

¹⁷ A. Bergman, Coalspur and Mercoal - A Changing Settlement Pattern, Geography 525 Field School Paper, 1964, pp. 14, 17.

(Photograph 13), and this has only decreased slightly today. The elementary school, legion hall, and drugstore in the centre of town and the Spanach service station beside Highway 47 on the outskirts of the settlement are the only abandoned businesses whose buildings still dot the landscape.

Coalspur has about the same population as Mercoal but has only twenty-seven buildings left.¹⁸ The most prominent feature in Coalspur is M. Vitaly's mine buildings, which are separated from the settlement by railroad tracks (Photograph 22). With the exception of the railroad station, which has been converted into living quarters, all of the business buildings in Coalspur are abandoned. The former site of the railroad roundhouse is indicated by a number of parallel tracks terminating at a spot in the centre of Photograph 22. It is fitting that the roundhouse site is in the centre of the photograph since the raison d'être of Coalspur was to be found in the activity associated with the presence of the roundhouse on the landscape.

At Sterco, Coal Valley, Foothills, Reco, and Lovett, only a small fraction of the houses remain intact. Out of these settlements only two people live in Coal Valley and one in Reco. A distinctive building in Foothills is a white church located near the Forestry Trunk Road. This is a Roman Catholic Church which was built about 1956, one year

¹⁸ Ibid., p. 11.

before the underground mine at Foothills closed. The Church is boarded up but appears to be well maintained. At Coal Valley with the exception of a few sheds, only five out of a former thirty houses on the hill above the mine buildings remain. Two people live in one of these houses, one of whom until a year ago was employed by the Sterco-Coal Valley Mining Company to burn down most of the unsalvageable homes at Sterco and Coal Valley, and generally "to look after the property".¹⁹ At Reco one former coal miner squats on Government land. Lovett has the most buildings left of any of the settlements in the East Arm (Photograph 4). This is due to the fact that, unlike Sterco, Coal Valley, and Foothills, the land and buildings at Lovett are privately owned. In general, mining companies who owned buildings tended to sell them for whatever price they could get. Barring this, the buildings were eventually destroyed. In the Lovett area no mines operated after 1934, so that the explanation for the contemporary existence of buildings in the settlement must be found in the period prior to this date. In the 1920s Mr. and Mrs. D. Arpacci²⁰ bought much of the land in and

¹⁹ Pers. comm. P. Kukuchka, former Shovel Operator for the Coal Valley Mining Company, Coal Valley, June 13, 1967.

²⁰ Mr. Arpacci was a coal miner at Lovett from 1912 until 1930 and was a trapper in the area southwest of Lovett to the Rocky Mountains from 1930 until his retirement in 1959 (Pers. comm. D. Arpacci, Edson, May 21, 1966).

around the old Lovett settlement.²¹ Mr. Arpacci's wife ran a general store and a few small log cabins near the store, all of which remain standing today near the Forestry Trunk Road (Photograph 5). The cabins were operated as a type of motel. In 1964 Mr. and Mrs. D. Cole bought this property from the Arpaccis.²² The Coles and three other owners hold title to the land comprising the settlement of Lovett, and do not wish to destroy the remaining buildings.

In settlements where buildings have been leveled, the presence of a cement foundation often provides the visual means of identifying the existence of a building on that site in the past. Photograph 48 of the site of the railroad station buildings at Sterco illustrates this last statement. The identification of former sites of buildings from field examination depends on the method used to destroy the building and the date at which this was done. Most of the buildings in the region have been destroyed by crews from the Provincial Department of Lands and Forests. The buildings are destroyed by fire, and then bulldozers cover the foundation of the building with earth or coal slag. No

²¹ After 1926 the Provincial Government refused to sell any more land in the region to individuals or companies (Pers. comm. Mrs. A. Cole, Schoolteacher and daughter of P.A. Robb, Edmonton, July 10, 1967).

²² Mrs. Cole reopened the Lovett store during July and August 1966 and during August 1967. However, the number of tourists stopping at the store has been insufficient to make this business a profitable venture.

attempt is made to reseed the area to grass or trees. This is left up to nature.

The Abandonment of Underground Mines and Mine Buildings

Time and the size of the mining company are two factors which affect the appearance of the landscape around an abandoned underground mining operation. Photographs 8, 32, and 35 of the Cadomin and Coal Valley operations illustrate the effect on the landscape resulting from a highly capitalized mining company abandoning operations in the 1950s. In these photographs cement vestiges of the former buildings and entrances are all that remain on the surface landscape. Comparing these photographs with those of the Bryan mine, which was abandoned about the same time, the latter mine appears to be properly sealed, but the area around the mine has an untidy appearance (Photographs 29 and 30). Old lumber cars, an old truck, and piles of rubble, gravel, and slag make the area look as if a tornado had just struck it! In Chapter IV the theory was put forward that the owners of this Company were out to make a large immediate profit through the selling of shares and then let the mine go bankrupt. It appears from Photograph 29 and 30 that the Company carried this philosophy into the field of mine abandonment. In fairness, though, it must be pointed out that the Provincial Government has no specific regulations or guidelines which govern the cleaning up of abandoned coal processing facilities or settlements. One policy,

however, is that buildings which were constructed on land leased from the Government²³ should be destroyed if, in the opinion of the forestry people, their decaying structure may cause injury to animals and humans. Whenever the forestry personnel have had to dismantle a settlement and/or mine buildings, a reasonably tidy landscape has usually resulted. However, the dismantling of coal processing facilities and the sealing of mines has usually been carried out by the coal company, not by the Government.

According to J.D.B. Brown,²⁴ "improper" abandonment of the mining operation has tended to occur in the case of some of the small companies, which were undercapitalized at the beginning and bankrupt at the end of operations. Therefore, one could conclude that the reputation of the company and the amount of money in the company's bank account has something to do with the appearance of the landscape around an abandoned mine.

The longer a particular mining operation has been abandoned, the less untidy the landscape tends to look and the less evidence there is to make field identification of the former site of the mine possible. Erosion and natural revegetation certainly play a role in modifying the total landscape as the discussion on strip mines in this chapter

²³ These buildings, if not removed, would be forfeited to the Crown once the lease had expired.

²⁴ Pers. comm. J.D.B. Brown, Edmonton, July 6, 1967.

will bring out. Renewed mining activity by the same company or a new company on a previously mined site changes the appearance of the landscape considerably. For example, at Mile 33 the Lakeside Coal Company strip mined some coal in 1949 near their old Lakeside underground entrance at the east end of their old trestle. This short-lived stripping operation has made precise identification of the site of the entrance impossible. In the vicinity of the Lakeside mine buildings a thorough job has been done by bulldozers after 1946 to obliterate most traces of these buildings. The relocation of the railroad tracks in the vicinity of the Lakeside mine buildings has also made identification of their site impossible without the aid of photographs of these buildings (Photographs 24 and 25). A similar conclusion could be put forward in the case of the Pacific Pass Coal Fields' mining operation at Lovett between 1911 and 1919 (Photographs 2 and 3).

Strip Mines

A striking feature in the present landscape of the Coal Branch is the huge banks and dumps of overburden resulting from strip mining (Photographs 42 and 49). Mechanical damage to trees at the base of the overburden is evident. The results of erosion are to be seen in the dissected character of the areas which have been cleared of trees.

One of the problems in the region is the restoration of stripped land to its natural state or to a state of

potential usefulness for some economic activity other than strip mining. With respect to strip mines in the United Kingdom, the top soil is saved and once more put on top after the strip pit has been filled in.²⁵ Considerable experimentation has taken place in parts of the United States with the purpose of restoring stripped land for forestry, pasture, and recreation. According to Cormack, some attempt has been made to fill in two abandoned strip pits in the Coal Branch, but even here there are no signs of natural regeneration, and no attempt has been made in the way of artificial reforestation.²⁶ Dumps of overburden up to fifty years old in the Sterco-Coal Valley area support a thin scattering of horsetails, grasses, and weeds on levelled-off areas, but the steep and deeply eroded banks are still bare.

Today the strip pits at Coal Valley, Mountain Park, Cadomin, and Luscar are filled with water to a depth of up to fifty feet (Photograph 45). These artificial lakes have been stocked with fish in the cases of Mountain Park and one of the Coal Valley pits, so that sport fishing in these water bodies (as well as in the streams) is an increasingly popular pastime.

The practice of filling an abandoned pit with

²⁵ R.G.H. Cormack, "Botanical Survey of the Brazeau Forest Reserve, 1950", Forest Conservation Studies in Alberta 1944-1952, 1952, p. 199.

²⁶ Loc. cit.

overburden from a producing pit is one way of disposing of the overburden, but it can be very dangerous where the same seam is being or will be mined from underneath. The flooding of part of the Cadomin strip pit,²⁷ which was greatly accentuated by a cloudburst on June 14, 1950, caused the cave-ins that resulted in the deaths of five miners who were working underneath in the Cadomin east mine (underground).

The Provincial Government does not require back filling of overburden into the stripped area, let alone re-seeding of the overburden or of top-soil placed on top of the overburden. It has already been pointed out that re-vegetation is very slow on fairly level, stripped land and is non-existent on steeply sloping land. Hence, the strip mines have changed very little in appearance following the cessation of mining activity.

The Future of the Coal Branch

Until 1967 the possibility of any major new economic developments occurring in the immediate future was considered to be very small, according to the opinions advanced by people knowledgeable about the region. R.G. Seale, who wrote an excellent paper which focussed on the coal mining industry of the Coal Branch, concluded that "any rejuvenation of the regional economy will depend on something other than coal

²⁷ This pit had been partially filled in with overburden.

mining".²⁸ An article in The Edmonton Journal two years later was only a little more optimistic:

Coal Branch coal will 'remain in the basement' in the immediate future, an Alberta Coal Ltd., Calgary, spokesman said.

Alberta Coal believes, however, that export markets will ... develop. Japanese pressure on Western Canadian coal areas has increased recently

A spokesman for Luscar Coals Limited, the other large lessee²⁹ in the Coal Branch, is confident ... that the area's long-term future will be bright with respect to new coal developments.

He also did not foresee immediate markets for his company's coking-coal deposits.³⁰

On the basis of field observation and interviews with J.D.B. Brown and P.J. Cullimore, Executive Vice-president of Luscar Coals Limited, the writer predicts that no coal mining will occur in the Mercoal area in the foreseeable future, but that strip mining in the Luscar area is likely to take place in two to three years. The following discussion provides the basis for making such predictions.

The market for domestic coal is a declining one as examination of coal production figures for the last decade

²⁸ R.G. Seale, The Mining Industry of the Coal Branch and Upper Athabaska Regions: Its Development and Future, 1964, p. 34.

²⁹ Luscar Coals Limited holds 9,000 acres under lease in the Luscar area (Map 6). The only other large lessee of coal lands in the lower Cretaceous area of the region is Concord Engineering, who have leases west of Mountain Park which are less promising than those near Luscar.

³⁰ "Coal Branch Redevelopment Not Immediate", The Edmonton Journal, summer of 1966, page not known.

in the Drumheller area³¹ will attest. Someday coal may be mined again at the Head of the Branch and in the East Arm, but at present, coal from Western Canada is either going to the Japanese iron and steel industry, or is being mined to supply nearby thermal power plants. Firstly, the Tertiary coal in the region is a non-coking coal. Secondly, there is no large water supply located in or near the Coal Branch. This is needed for thermal power production. Therefore, the coal at Mercoal, Robb, and in the East Arm will have to await the development of new markets for this type of coal and/or its byproducts or a revival of old markets. Therefore, Alberta Coal Limited,³² a subsidiary of the Mannix Company, Limited, will not likely be mining coal here in the foreseeable future.

Luscar Coals Limited is presently negotiating through intermediaries with the Japanese iron and steel industry concerning the shipment of 1,200,000 tons of stripped coal to Japan annually on a ten-year contract.³³ No agreement has yet been reached, so that it is premature to speculate on an exact date at which there will be strip mining in the Luscar area. If an agreement is signed, for example,

³¹ Government of Alberta, Department of Mines and Minerals, Mines Branch Reports, Edmonton, 1957-1967.

³² The leases of Alberta Coal Limited in the region are confined to the Mercoal area.

³³ Pers. comm. P.J. Cullimore, Edmonton, August 1, 1967.

in September 1967, Luscar Coals Limited could commence stripping operations before the end of 1968 and be shipping coal from their processing facilities by September 1969. These facilities would include a sizing plant, wet washery, and loading facilities employing about forty men. The total employment estimated for the stripping and cleaning of the coal is expected to be 125 men.³⁴ The employees and their families would be housed at Cadomin. If this occurred, it would more than triple that settlement's present population of 90. At present, the West Mine Road is the only means of getting into the Luscar area by road or rail. If Luscar is reopened, the C.N.R. will bring their abandoned spur-line from Leyland to Luscar into operating condition, and Luscar Coals Limited will reopen Highway 47 from Leyland to Luscar. The effects of these developments on the landscape in the Cadomin-Luscar area would be quite considerable.

Proof of the interest being shown in the coal deposits near Luscar can be had by noting that Luscar Coals Limited has a portable coal drilling rig (Photograph 50) operating in the Luscar area. This operation presently requires twelve men who reside in tents located near the old Luscar townsite (Photograph 41).

³⁴ Loc. cit.

TABLE II

Analysis of Washed Coal from Luscar, Coleman, and Natal

	Luscar Coals Limited, Luscar, Alberta	Coleman Collieries Limited, Coleman, Alberta	Crows Nest Industries Limited, Natal, British Columbia
Ash content (per cent)	8.0	9.0	9.5
Volatility (per cent)	27-28	20-22	18-20
Fixed Carbon (per cent)	64	67-69	68-70
Sulphur (per cent)	less than 0.20	0.50	0.35
Moisture (per cent)	negligible	less than 2	less than 2
Coking index (coke button)	6-7	7-8	6-8.5
Coking coal re- serves in the lease area (tons)	100,000,000	150,000,000	"billions"
Present tonnage shipped to Japan per year	0	400,000	400,000

Source: Pers. comm. with officials of these three companies.

The best criterion in Table II for determining the suitability of the coal for the coking coal market is the coke button. From Table II, the coke button of the Luscar coal and the coal from the Crow's Nest Pass is seen to be

approximately similar. The expanding Japanese iron and steel industry will need to import about five million tons of coking coal annually within the next five years in addition to the fifteen million tons which it now imports from various states.³⁵ In a previous paper,³⁶ the writer has outlined the reasons why the Japanese are likely to turn to Western Canada for a large part, if not all of the five million tons. The two mines in the Crow's Nest Pass, the Canmore mine, the McIntyre Porcupine mine at Grand Cache (Map 1), and the Luscar mine are all possible customers for the Japanese. These five mines have about the same quality of cleaned coal to offer the Japanese although Luscar's uncleaned coal is inferior in quality to the rest, and hence, will require more expensive cleaning facilities. Coal from Luscar and Grand Cache would have the farthest to travel via rail to Port Moody³⁷ near Vancouver. From here the coal would be transported to Japan by boat. The advantage that Luscar Coals Limited has is that its coal is strippable while the other four companies will have to depend on underground mines for most or all of their

³⁵ Pers. comm. F.J. Harquail, President of Coleman Collieries, Coleman, Alberta, September 13, 1966.

³⁶ D.W. Lake, The Coal Industry of the Crow's Nest Pass, Geography 525 Field School Paper, 1966, p. 13.

³⁷ Prince Rupert, British Columbia does not have adequate loading facilities for handling coal.

production. The preceding discussion of the spatial relationships involved in the sale of coking coal to Japan suggests that the Coal Branch may be due for a major economic development within the next three years.

What other changes in the region's landscape are likely to occur in the immediate future?

The Provincial Department of Highways has aroused much speculation as to future economic developments in the Coal Branch by its decision to reconstruct and widen Highway 47 from the Highway 16 turnoff to Robb. The eventual aim is to pave this stretch of road. Why is this road being improved? The most likely explanation is that such a road is needed to handle the increasing number of tourists and other visitors using the highway. More people are using Highway 47 and the Forestry Trunk Road to Nordegg than at any time in the past. Therefore, the most logical explanation for this road construction is that the flow of tourists has necessitated the construction of wider, straighter, and hence, safer roads into and in the region.

Tourism has considerable potential in the region. The Provincial Department of Lands and Forests has constructed campsites at the junction of Highway 47 and the Forestry Trunk Road south of Coalspur,³⁸ and beside Highway 47 near the junction of Whitehorse Creek and McLeod River

³⁸ This campsite is complete with enclosed kitchen facilities.

(Map 6). In addition, there are numerous other unserviced camp grounds. With Banff and Jasper being very crowded during the summer months, the Coal Branch is a haven for those wishing to have a quiet vacation in the mountains away from crowds and sophisticated resort facilities. No mountain resort area is closer to Edmonton's 400,000 people than is the Coal Branch. Indeed, tourism may eventually compete with mining (coal and limestone) in terms of its contribution to the region's economy. On this basis, the Provincial Government should consider the possibility of cleaning up the debris left behind by coal mining companies, so as to enhance the tourist potential of the Coal Branch.

In addition to coal mining and tourism, other economic activities may develop or expand in the future. Inland Cement Industries is anticipating only modest increases in its production of limestone in the next few years. At the present rate of production the Company has proven limestone reserves on their property to keep production going for the next 50 and probably the next 100 years.³⁹ About one mile west of the mouth of Whitehorse Creek, Mr. J. Farmer has leased 130 acres on which he plans to mine limestone and build a small lime kiln. So far, only a crude road has been built from the campsite on Whitehorse Creek to his property. The project appears to be undercapitalized

³⁹ Pers. comm. M.T. Pero, Cadomin, July 20, 1967.

and economically unfeasible. In recent years oil drilling activity has increased at the Head of the Branch and in the East Arm.⁴⁰ Numerous roads have been cut by oil companies from the Forestry Trunk Road to each drilling site (Map 6). Near Mercoal is a 'Christmas tree'⁴¹ (a capped well), indicating that there has been at least one oil or gas discovery in the region. The flow of vehicles associated with the oil and gas industry into and out of the region is expected to increase in the future.

The future agents affecting the landscape of the Coal Branch could well be coal mining at Luscar, limestone quarrying at Cadomin, and logging in various parts of the region. Also important will be the activities associated with a number of tourist resorts and campgrounds concentrated in the area nearest the Nikanassin Range.

⁴⁰ There are a growing number of producing oil and gas wells in the Edson area to as far southwest as Weald, ten miles north of Robb.

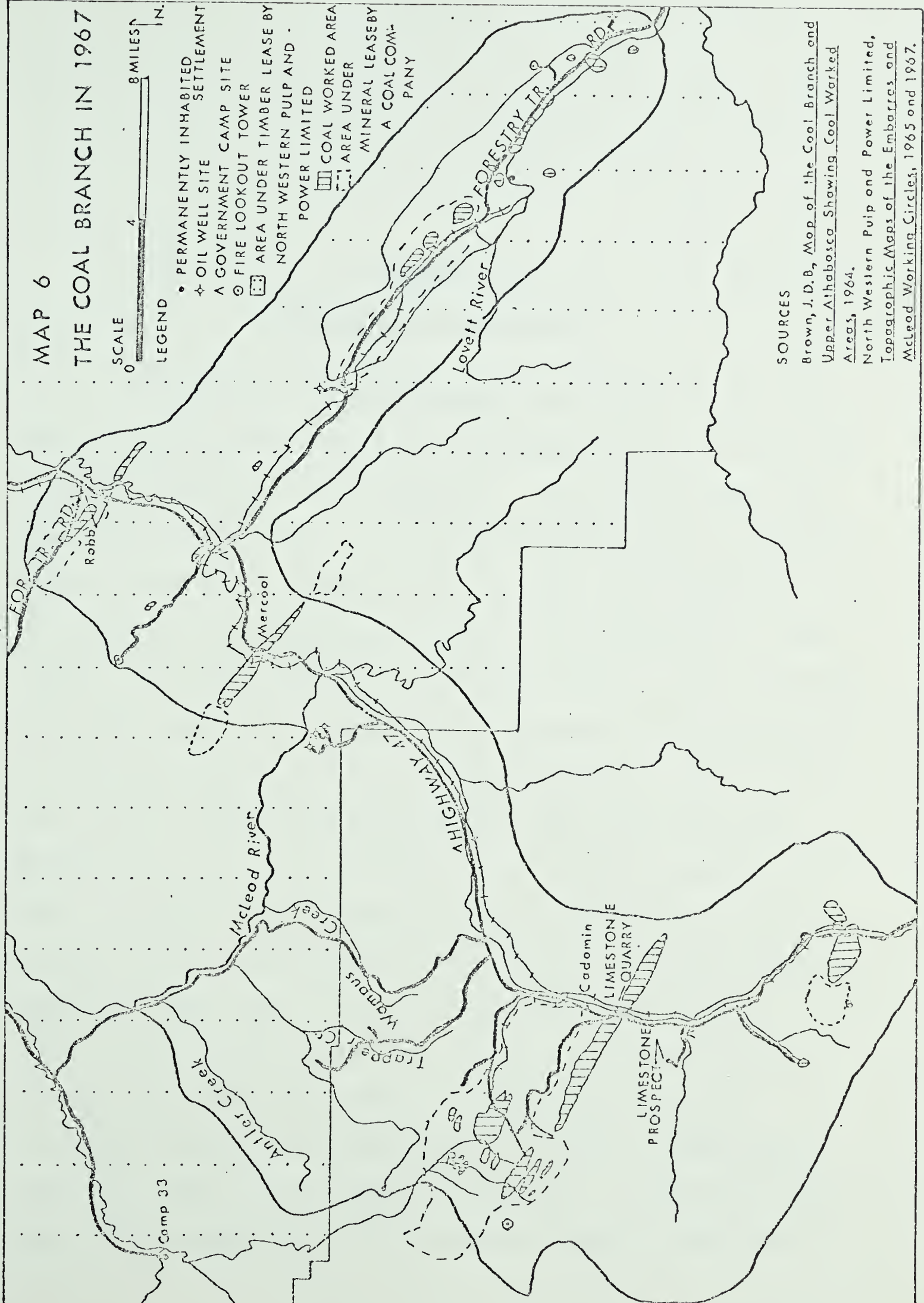
⁴¹ Pers. comm. E. Aloisio, Robb, June 13, 1967.

MAP 6

THE COAL BRANCH IN 1967



- PERMANENTLY INHABITED SETTLEMENT
- ✦ OIL WELL SITE
- △ GOVERNMENT CAMP SITE
- ⊙ FIRE LOOKOUT TOWER
- ▨ AREA UNDER TIMBER LEASE BY NORTH WESTERN PULP AND POWER LIMITED
- ▩ COAL WORKED AREA
- ▤ AREA UNDER MINERAL LEASE BY A COAL COMPANY



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CHAPTER VI

SUMMARY AND CONCLUSIONS

Discussion of the historical geography of the Coal Branch has revolved around the changing fortunes of the coal industry from 1911 to the present. Its location near the main line of the C.N.R., extending from Edmonton to the West Coast, was a factor which helped to make exploitation of the region's coal deposits possible. The shipment of coal, lumber, and other products to markets relied on the railroad was a necessary prerequisite to development of the resources of the Coal Branch, and the primary market for the coal was the C.N.R.'s coal-using locomotives. The domestic fuel market was an important market for the mines at Mercoal and Robb. The other mines had less than twenty-five per cent of their production going to markets other than the railroad. Therefore, the C.N.R. was the market which ultimately affected most of the landscape changes. The conversion to diesel-using from coal-using locomotives by the C.N.R. in the 1950s accounted for the closure of most of the mines, and hence, most of the nearby settlements. During its peak years in the 1940s the Coal Branch was "one of Alberta's

most prosperous areas, producing 1,500,000-2,000,000 tons of coal annually (Table III, Appendix). About 16,500 residents lived there".¹ Today the region has 400 residents and several ghost towns.

None of the human activity in the region associated with the coal industry would have been possible, had the quantity, quality, and accessibility of the coal not been favourable for commercial exploitation. The coal was found in pitching seams which were often folded upon one another near the surface. Thus, both strip and underground mining were feasible and were often undertaken in close proximity to each other. Huge mounds of slag and overburden from both types of mines considerably changed the appearance of the landscape through time. The present landscape is a testimony to the inability of nature, even with some help from man, to remove these scars on the physical setting.

The degree of capital investment in a mining enterprise affected the types and degrees of changes wrought on the landscape. The larger the capital investment, the larger coal production and employment usually was, and the more pronounced the effects were on the landscape. These changes found their expression on the landscape with respect to, for example, the type of coal handling and processing facilities built. Small operators either became, or sold

¹ A. Sorensen, "Ghost Towns", The Edmonton Journal, August 22, 1966, p. 6.

out to, big companies. After 1945 only larger coal companies were active in the region (with very few exceptions).

During the 1950s large companies also came to dominate the lumbering and limestone industries. Coal mining, lumbering, and limestone quarrying are becoming increasingly capital intensive and mechanized so that the small operator has little chance of successfully competing with the large operator. Therefore, any future economic developments will likely be highly capitalized ventures. Thus the effects on the landscape will be correspondingly more extensive.

The early settlements were small and tended to be isolated from the outside world and from each other. Each mine had a nearby settlement which was planned, built, and controlled by the company which operated the mine. The two major differences in the landscape between the settlements in the Coal Branch and those of similar size in the agricultural belt of the Canadian Prairies related to coal-mining versus agriculture, and to the company-owned town versus privately owned buildings. In other respects, the settlements of the Coal Branch closely resembled any other settlement in the Prairies containing 500 to 1000 inhabitants.

The completion of Highway 47 in 1951 helped to break down the isolation barrier which had existed between the Coal Branch and the outside world as well as within the settlements of the region. Residents became regionally

conscious in addition to being community conscious. With the future possibilities of coal mining, lumbering, oil and gas production, and tourism, the Coal Branch will be populated by many people who are newcomers to the region. In this situation the term "Coal Brancher" may assume a different meaning or may even become meaningless as the regional consciousness of its future residents becomes increasingly diluted.

The possible future modifications of the landscape by man have been discussed in Chapter V. The Cadomin-Luscar area is likely to undergo the greatest modification of any area in the region because of the possibility of renewed strip mining west of Luscar. However, regardless of any future commercial undertakings, past human activities will continue to find their expression in the future landscapes of the Coal Branch.

PHOTOGRAPHS



Photograph 2 Pacific Pass Coal Fields Limited Mine
Buildings and Settlement at Lovett, 1914 (A. Godby)



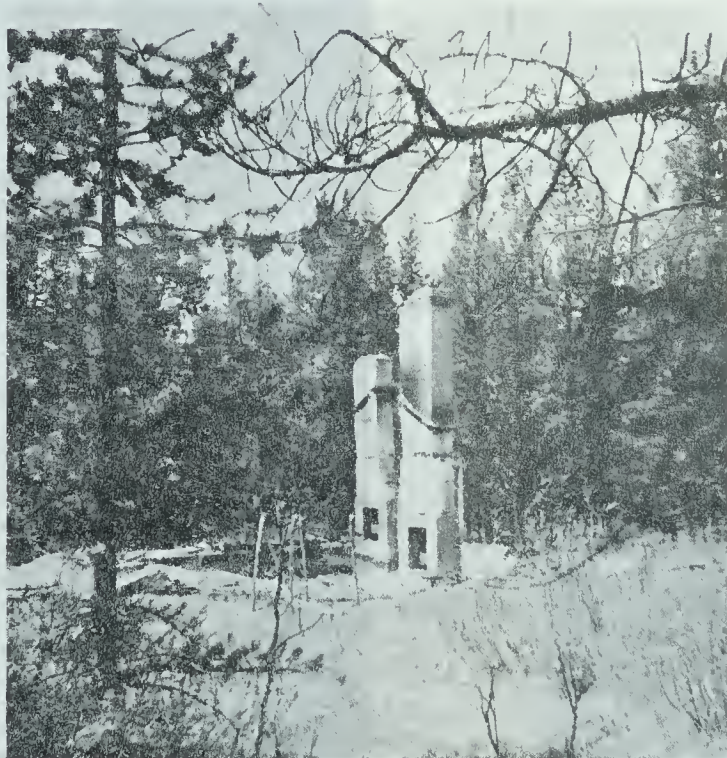
Photograph 3 Former Site of
Mine Buildings at Lovett, 1967



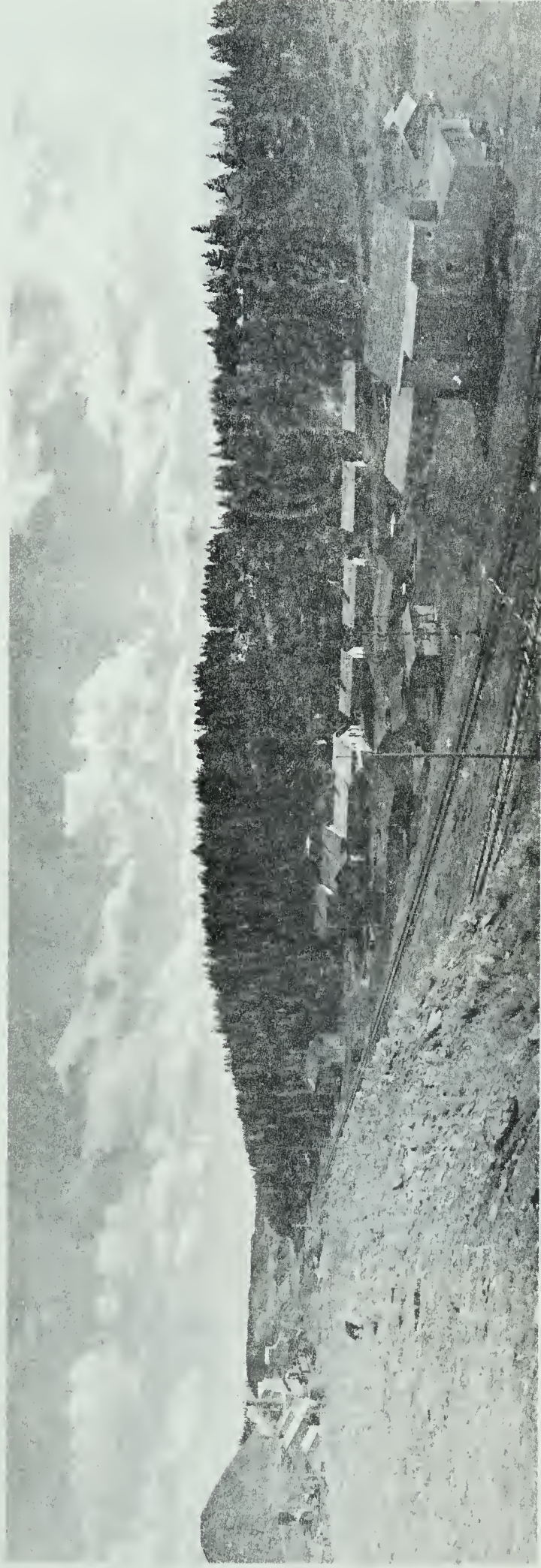
Photograph 4 Former Site of
Settlement at Lovett, 1967



Photograph 5 Store and Cabins Owned by Mr. and Mrs. D. Cole at Lovett, 1967



Photograph 6 Remains of Mine Manager's Residence at Lovett, 1967



Photograph 7 Mine Buildings and
Settlement at Coal Valley, 1954
(P. Kukuchka)



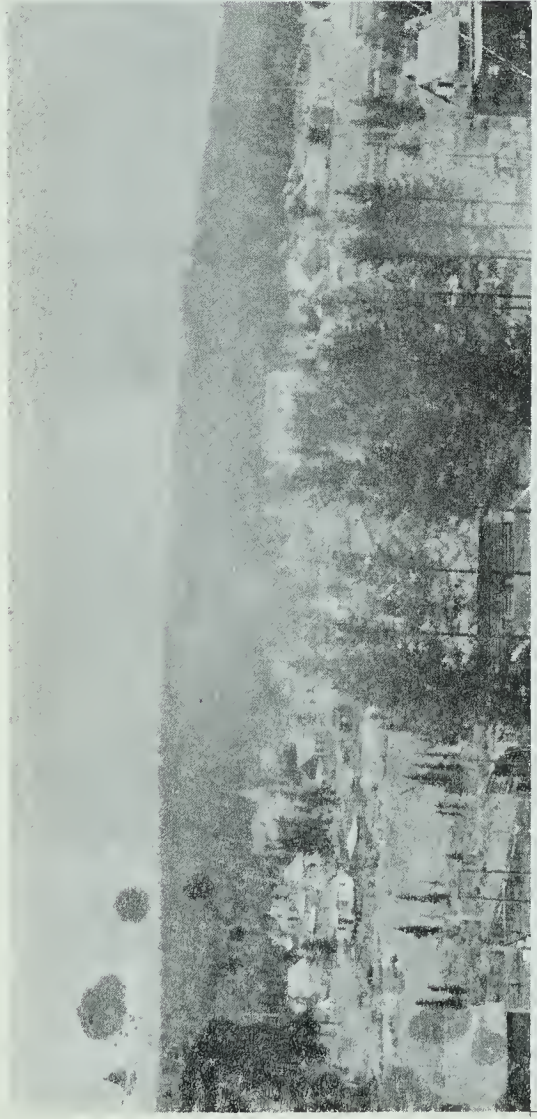
Photograph 8 Former Site of Mine
Buildings at Coal Valley, 1967



Photograph 9 Mine Buildings and Settlement at
Foothills, 1945 (P. Kukuchka)



Photograph 10 Former Site of Mine Buildings
and Settlement at Foothills, 1967



Photograph 12 Settlement of Mercoal, 1950s (G. Conger)



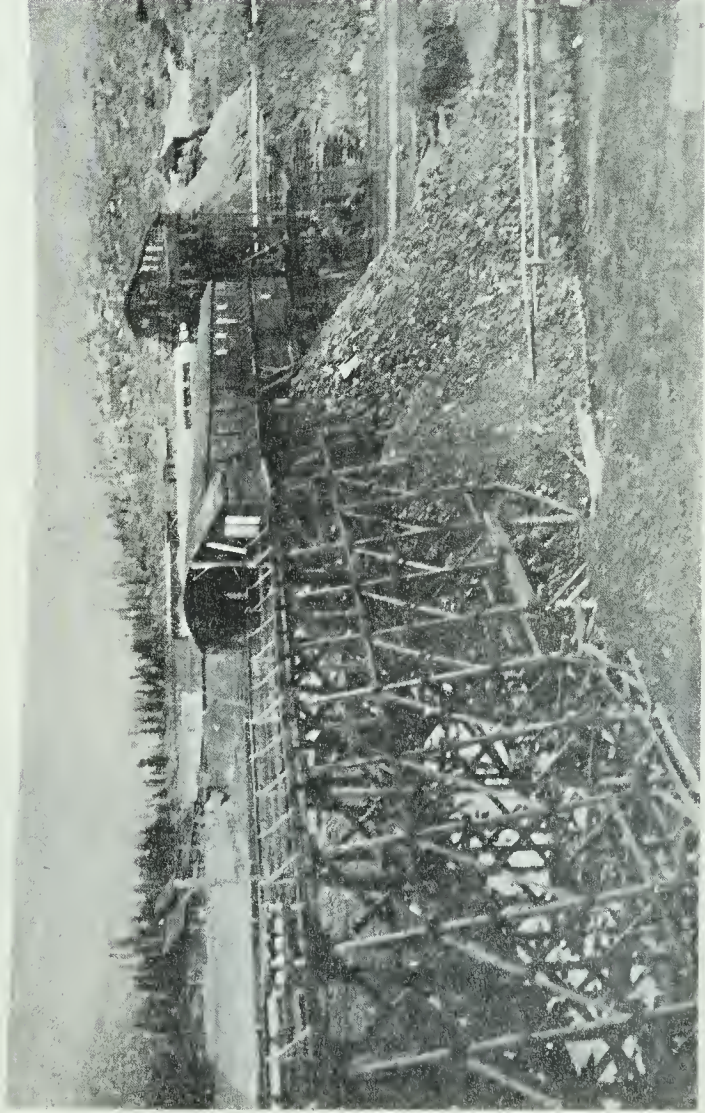
Photograph 11 Mine Buildings at Mercoal,
1939 (A. Murray)



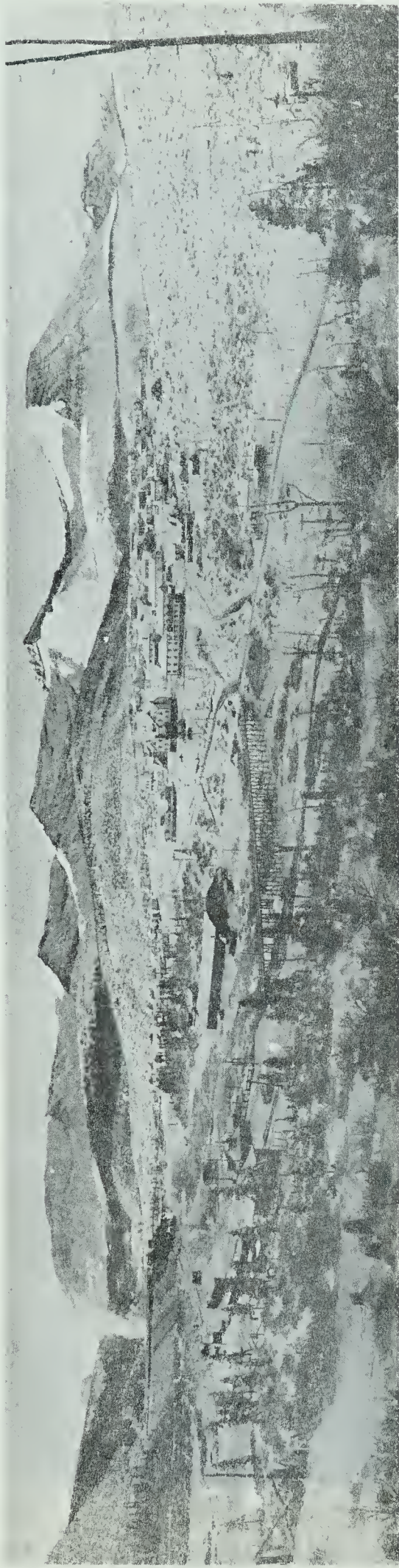
Photograph 13 Remains of Mine Buildings and Settlement at Mercoal,
1964 (A. Bergman)



Photograph 15 Mine Buildings,
Railroad Station, Settlement
at Mountain Park, 1927
(A. Godby)



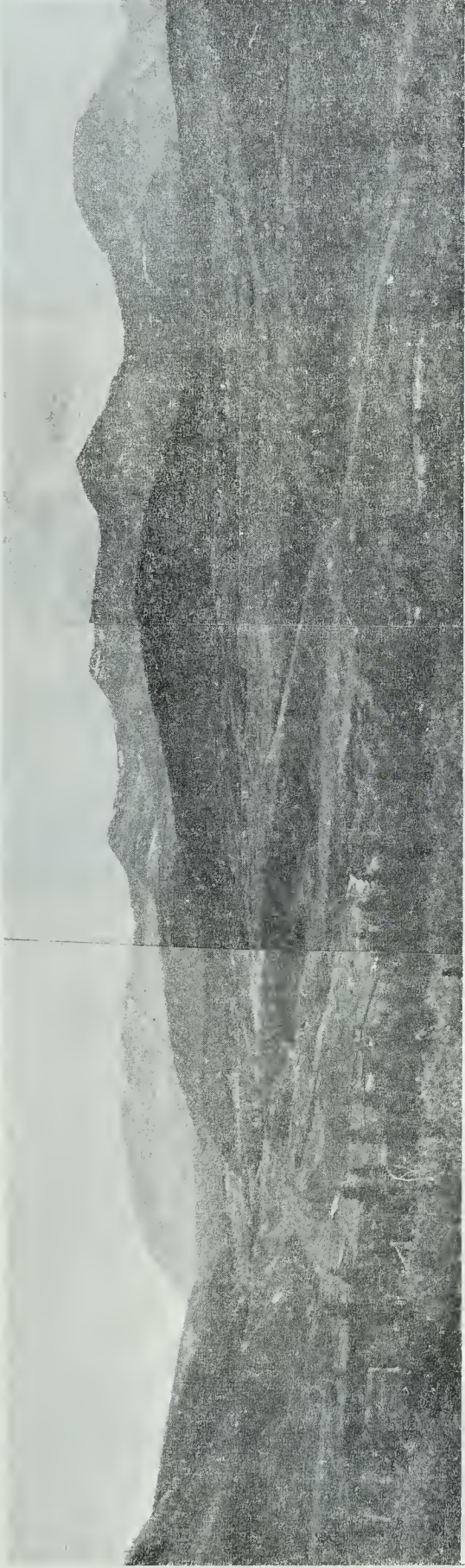
Photograph 14 Mine Buildings
and Trestle Bridge across
McLeod River at Mountain Park,
1923 (J. B. Roome)



Photograph 16 Mine Buildings,
Railroad Station, Covered Rink,
Settlement at Mountain Park,
1940 (A. Godby)



Photograph 17 New Tipple of
Brick Construction at Mountain
Park, 1941 (J. B. Roome)



Photograph 19 Former Site of
Mountain Park, 1967



Photograph 18 Settlement of
Mountain Park showing "long
row" and "short row", early
1940s (A. Godby)



Photograph 22 Settlement, Mine Buildings, Remains of Railroad Roundhouse
at Coalspur, 1964 (A. Bergman)



Photograph 20 Part of the settlement of Coalspur, 1913 (A. Godby)



Photograph 21 Forestry Headquarters
at Coalspur, 1927 (L. C. Stevens)





Photograph 23 Old Lakeside Tipple at Robb, 1929 (L. C. Stevens)



Photograph 24 New Lakeside Mine Buildings
at Robb, 1930 (L. C. Stevens)



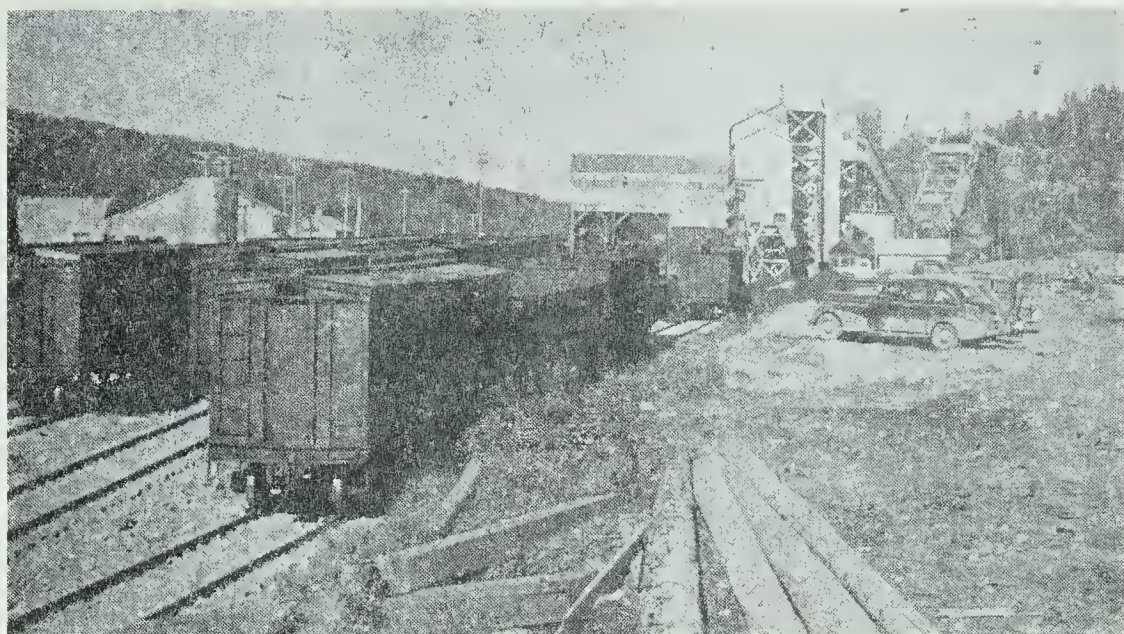
Photograph 25 Former Site of the Lakeside Mine
Buildings at Robb, 1967



Photograph 26 Part of the Lakeside Settlement and Mine Buildings
at Robb, 1940s (L. C. Stevens)



Photograph 27 Settlement at Mile 33, 1967



Photograph 28 Bryan Mine Buildings at Mile 32, 1952



Photograph 30 Former Site
of Some of the Mine Buildings
at Mile 32, 1967



Photograph 29 Abandoned
Tipple at Mile 32, 1967



Photograph 31 Coal Processing Facilities Including an Air Cleaning Plant, Tipples, and Power Plant (in front of Tipples) on the East Side of the McLeod River at Cadomin, 1940 (N. Melnyk)



Photograph 32 Former Site of the Facilities Listed in Photograph 31 at Cadomin, 1967



Photograph 35 Former Site of the
Facilities Listed in Photographs
33 and 34 at Cadomin, 1967

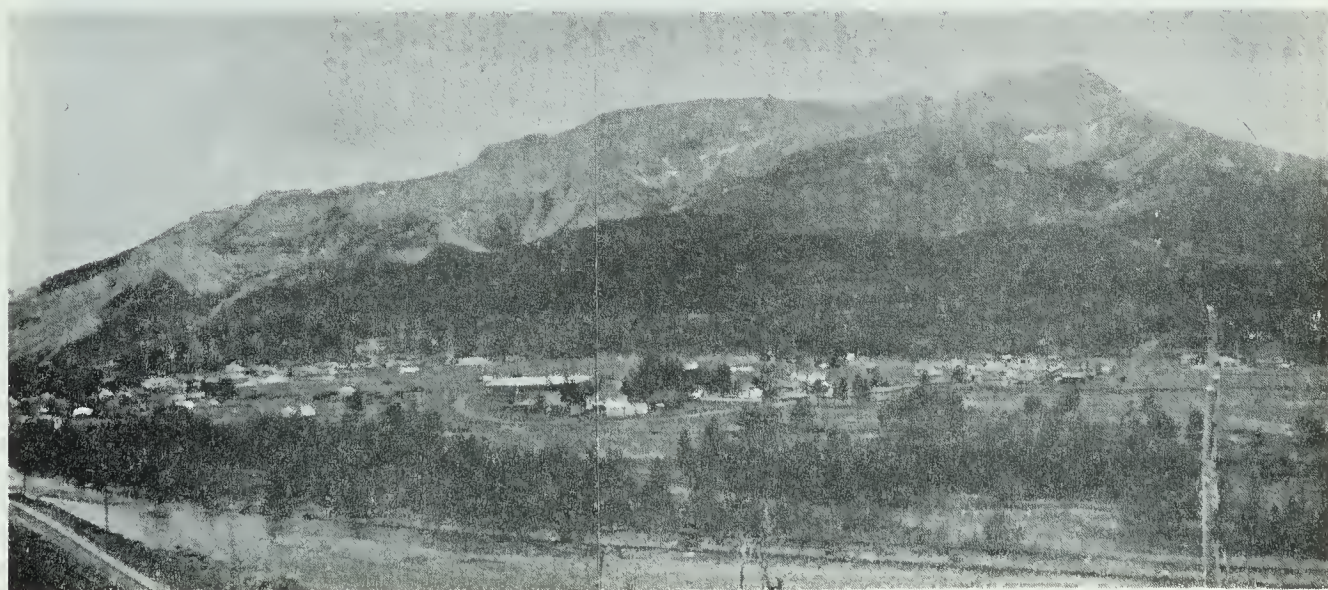
Photograph 33 Coal Processing Facilities Including Garage,
Wash House, Chute, Bin, Headframe, and Office on the West
Side of the McLeod River at Cadomin, 1940 (N. Melnyk)



Photograph 34 A Closeup of the Wet Washery on the West Side
of the McLeod River at Cadomin, late 1940s (J. Roberts)



Photograph 36 Settlement of Cadomin, 1948 (J. Roberts)



Photograph 37 Settlement of Cadomin, 1967



Photograph 38 Former Houses of Cadomin Coal Company Officials
Now Occupied by Employees of Inland Cement Industries near
Cadomin, 1967



Photograph 39 Limestone Handling and Processing Facilities
near Cadomin, 1967



Photograph 40 Mine Processing Facilities and Part of the Settlement at Luscar, 1956 (A. Godby)



Photograph 41 Former Site of the Settlement of Luscar Showing Tents Occupied by Coal Drilling Crews, 1967



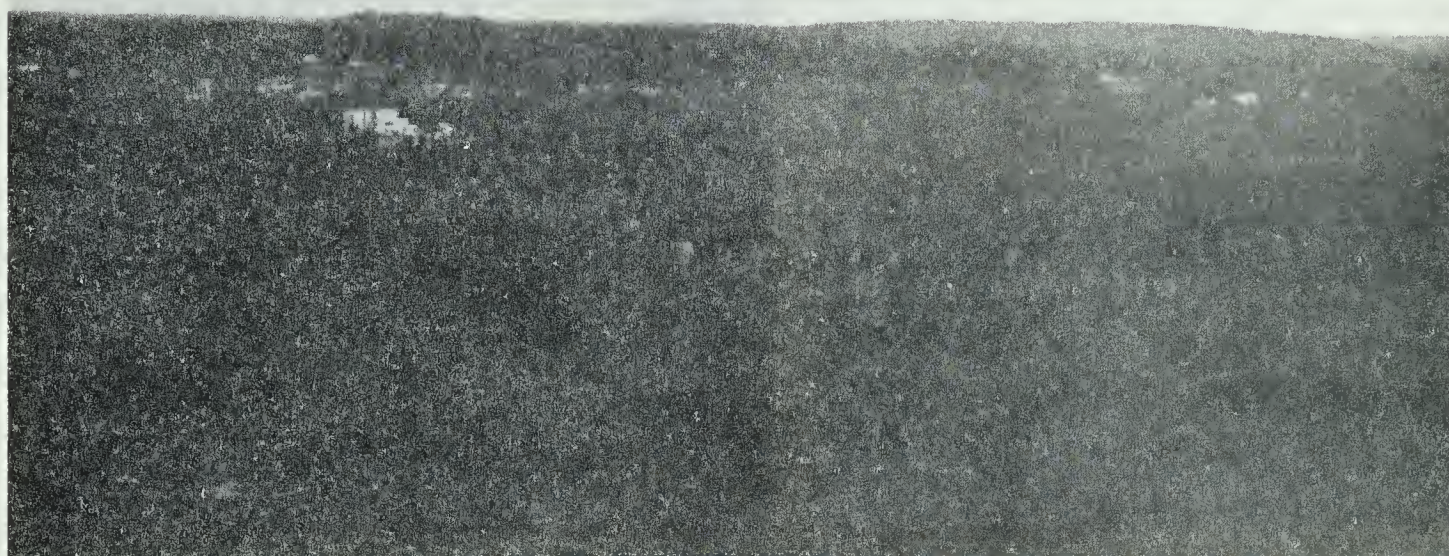
Photograph 42 Strip Pit Number One at Coal Valley Showing Marion Steam Shovels at Work, 1929 (P. Kukuchka)



Photograph 43 Strip Pit Near Bryan Showing Pitching Seams of Coal Interspersed with Clay (Dark Lines in the Background), 1967



Photograph 44 Cairn's Strip Pit West of Luscar, 1967



Photograph 46 Settlement of Robb (Bryan part), 1967



Photograph 45 Strip Pit Number Two
West of Mountain Park (Notice the
Pit Filled with Water), 1967



Photograph 47 W. G.
Wagner Saw Mill and
Planer Mill Abandoned
at Bryan, 1967



Photograph 48 Former Site of
the Railroad Station and (in
the background) Settlement at
Sterco, 1967



Photograph 49 Piles of Slag
From Abandoned Strip Mines
Near Sterco, 1967



Photograph 50 Coal Drilling
Rig in Operation near Luscar,
1967

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- Pers. comm. Vitaly, M.L., owner of the Coalspur mine, Edmonton, July 3, 1967.*
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APPENDIX

Following are records of production and employment for all coal mines and the limestone quarry reporting production in the Coal Branch from 1911 to 1966. In addition, Table III in the Appendix provides coal production figures for the Coalspur Coal Area, Mountain Park Coal Area, Coal Branch, and Alberta. Statistics have been compiled from the Mines Branch Reports of the Department of Mines and Minerals, Government of Alberta. Production figures include only the tonnage of coal and limestone shipped to markets from the processing facilities.

Since the records are for individual mines rather than companies, the reference to mine numbers is important. Note the locations of all mines by number in Map 6. The years given at the beginning of the record of each mine refer to years when a mining company was in existence and land leases were in effect.

This time period does not necessarily correspond to that of producing years. Often the first year or two of company existence consisted of prospecting and construction of coal processing facilities, with no actual production of coal being reported. Moreover, it was not uncommon for marginal producers to lapse into periods of total shutdown sometimes lasting several years, though their mining leases remained in effect.

TABLE III
Coal Production

Year	Coalspur Coal Area Tonnage	Mountain Park Coal Area Tonnage	Coal Branch Tonnage	Alberta Tonnage
1911	7,604	---	7,604	1,694,564
1912	23,706	4,716	28,422	3,446,349
1913	76,712	11,645	88,357	4,306,346
1914	167,918	84,506	252,424	3,821,739
1915	82,814	83,585	166,399	3,434,891
1916	65,994	139,538	205,532	4,648,604
1917	146,849	153,397	300,246	4,763,816
1918	195,972	255,263	451,235	5,972,816
1919	209,043	274,376	483,419	5,022,412
1920	437,093	241,429	678,522	6,907,765
1921	301,568	379,538	681,106	5,909,217
1922	547,064	357,698	904,762	5,970,911
1923	337,574	634,474	972,048	6,854,397
1924	506,050	286,297	792,347	5,189,729
1925	488,403	561,428	1,049,831	5,869,031
1926	402,259	806,500	1,208,759	6,503,705
1927	504,987	883,913	1,388,900	6,934,162
1928	645,370	975,584	1,620,954	7,336,330
1929	565,991	993,404	1,559,295	7,147,250
1930	515,296	726,777	1,242,073	5,755,911
1931	398,068	560,875	958,943	4,563,309
1932	452,532	711,383	1,163,915	4,867,884
1933	427,485	584,430	1,011,915	4,714,784
1934	410,108	623,231	1,033,339	4,748,848
1935	413,486	651,268	1,064,154	5,462,973
1936	388,766	655,139	1,043,905	5,696,375
1937	350,594	764,370	1,114,964	5,551,682
1938	351,427	688,449	1,039,976	5,230,015
1939	360,436	810,442	1,170,878	5,518,105
1940	448,619	1,011,252	1,459,871	6,205,088
1941	509,933	985,751	1,495,684	6,970,064
1942	658,061	932,403	1,590,464	7,754,279
1943	713,082	843,411	1,566,493	7,677,982
1944	651,340	892,954	1,544,294	7,427,433
1945	617,286	970,303	1,587,589	7,801,248
1946	832,987	1,109,465	1,942,452	8,824,455
1947	754,775	954,949	1,719,724	8,074,596
1948	782,206	1,105,467	1,887,673	8,111,013
1949	810,675	1,128,903	1,939,578	8,616,983

TABLE III (continued)

Coal Production

Year	Coalspur Coal Area Tonnage	Mountain Park Coal Area Tonnage	Coal Branch Tonnage	Alberta Tonnage
1950	794,957	982,667	1,777,624	8,118,206
1951	751,909	770,301	1,522,210	7,661,276
1952	748,186	566,215	1,314,401	7,194,472
1953	636,086	482,681	1,180,767	5,917,423
1954	517,815	265,075	782,880	4,859,136
1955	405,104	178,335	583,439	4,456,578
1956	366,305	116,656	482,961	4,329,639
1957	317,885	---	317,885	3,155,354
1958	227,982	1,121	229,103	2,519,939
1959	144,724	---	144,724	2,549,517
1960	1,983	---	1,983	2,404,083
1961	4,916	---	4,916	2,027,326
1962	6,263	---	6,263	2,087,310
1963	5,206	---	5,206	2,289,943
1964	5,896	---	5,896	2,971,133
1965	194	---	194	3,413,928
1966	---	---	---	3,467,254
TOTAL	21,487,944	27,201,564	48,689,508	

TABLE IV

Mine Number 220, Coalspur

1910 - 1915	The Yellowhead Pass Coal and Coke Company, Limited
1915 - 1916	Abandoned
1916 - 1923	Yellowhead Coal Company
1923 -	Abandoned

Tonnage		Monthly Employment. Maximum and Minimum Totals for Each Year.	
		Maximum	Minimum
1911	1,000	52	---
1912	15,629	91	55
1913	31,851	142	55
1914	75,728	286	136
1915	11,174	165	---
1916	---	---	---
1917	33,186	97	40
1918	41,980	95	42
1919	17,323	97	6
1920	55,880	155	57
1921	43,698	132	4
1922	31,561	76	13
TOTAL 359,001			

TABLE V

Mine Number 233, Lovett

1910 - 1913 Pacific Pass Coal Fields Limited
 1913 - 1916 Canadian Coal and Coke Company Ltd.
 1916 - 1920 North American Collieries, Ltd.
 1920 - Abandoned

Tonnage		Monthly Employment. Maximum and Minimum Totals for Each Year.	
		Maximum	Minimum
1911	6,604	37	17
1912	5,587	61*	61*
1913	42,146	170	47
1914	92,190	204	74
1915	71,640	254	126
1916	64,184	224	41
1917	72,805	109	52
1918	83,796	154	60
1919	83,717	173	19
1920	41,956	149	---
TOTAL	564,625		

* Average per year.

TABLE VI

Mine Number 282, Mountain Park

1911 - 1924 Mountain Park Coal Company, Ltd.
 1924 - 1937 Mountain Park Collieries, Limited
 1937 - 1950 Mountain Park Coals, Ltd.
 1950 - Abandoned

	Tonnage	Monthly Employment. Maximum and Minimum Totals for Each Year.	
		Maximum	Minimum
1912	4,716	88	18
1913	11,645	166	43
1914	84,506	246	206
1915	83,585	235	38
1916	139,538	242	167
1917	139,331	242	164
1918	136,054	241	140
1919	112,944	291	16
1920	173,813	321	201
1921	174,578	359	240
1922	101,572	348	21
1923	185,865	360	165
1924	67,173	404	19
1925	102,077	205	34
1926	153,969	214	170
1927	163,111	245	224
1928	187,632	271	242
1929	202,610	305	248
1930	156,141	268	220
1931	133,237	232	193
1932	185,802	251	210
1933	166,642	248	239
1934	181,725	239	217
1935	209,129	242	228
1936	204,290	251	234
1937	247,413	315	237
1938	259,278	357	246
1939	313,500	385	310
1940	346,873	407	265
1941	366,807	395	380
1942	298,529	400	254
1943	246,810	289	248
1944	248,311	294	254

TABLE VI (continued)

Mine Number 282, Mountain Park

Tonnage		Monthly Employment. Maximum and Minimum Totals for Each Year.	
		Maximum	Minimum
1945	231,565	271	230
1946	254,807	262	212
1947	238,912	266	237
1948	226,454	275	85
1949	246,349	253	110
1950	55,785	119	---
TOTAL	7,043,578		

TABLE VII

Mine Number 339, Coalspur

1912 - 1913 McLeod Collieries Ltd.
 1913 - J.A. Collins
 1913 - Abandoned

Tonnage		Monthly Employment. Maximum and Minimum Totals for Each Year	
		Maximum	Minimum
1912	2,490	21*	21*
1913	2,715	20*	20*
TOTAL	5,205		

* Average per year.

TABLE VIII

Mine Number 648, Mile 40

1916 - 1920 Oliphant-Munson Collieries, Ltd.
 1920 - 1927 Abandoned
 1927 - 1928 Coalspur Collieries, Ltd.
 1928 - 1929 Abandoned
 1929 - 1930 Beacon Coal Co., Ltd.
 1930 - Abandoned

Tonnage		Monthly Employment. Maximum and Minimum Totals for Each Year.	
		Maximum	Minimum
1916	1,810	48	25
1917	40,858	98	58
1918	53,159	117	89
1919	6,681	124	---
1920	---	---	---
1921	---	---	---
1922	---	---	---
1923	---	---	---
1924	---	---	---
1925	---	---	---
1926	---	---	---
1927	1,079	92	---
1928	16,233	101	---
1929	---	---	---
1930	---	---	---
TOTAL	119,820		

TABLE IX

Mine Number 693, Cadomin

1917 - 1952 Cadomin Coal Company, Ltd.
 1952 - Abandoned

	Tonnage	Monthly Employment. Maximum and Minimum Totals for Each Year.	
		Maximum	Minimum
1917	14,066	69	15
1918	119,209	134	75
1919	161,432	245	---
1920	65,443	226	63
1921	200,712	210	91
1922	169,681	254	19
1923	297,507	327	138
1924	157,425	325	33
1925	325,536	350	43
1926	438,552	390	245
1927	476,212	419	321
1928	542,588	410	324
1929	498,875	454	312
1930	401,553	402	281
1931	304,874	343	248
1932	337,496	316	260
1933	292,111	347	241
1934	324,526	335	268
1935	323,901	359	321
1936	314,343	407	348
1937	352,674	406	322
1938	270,932	322	206
1939	295,281	277	212
1940	328,070	268	229
1941	334,212	299	271
1942	283,340	288	259
1943	264,706	301	247
1944	327,017	287	250
1945	454,179	263	258
1946	458,797	292	270
1947	351,744	373	283
1948	412,871	371	101
1949	430,874	363	312
1950	371,348	308	210
1951	264,045	263	188
1952	53,750	199	---
TOTAL		11,019,882	

TABLE X

Mine Number 769, Sterco

1918 -	Rocky Hard Collieries
1918 - 1920	Oliphant-Munson Collieries Ltd.
1920 -	Oliphant Collieries, Ltd.
1920 - 1921	Oliphant-Munson Collieries, Ltd.
1921 - 1927	Sterling Collieries Co., Ltd.
1927 - 1954	Sterling-Coal Valley Mining Co., Ltd.
1954 -	Abandoned

Tonnage		Monthly Employment. Maximum and Minimum Totals for Each Year.	
		Maximum	Minimum
1918	14,120	89	20
1919	83,007	142	14
1920	244,133	250	119
1921	171,144	117	62
1922	367,514	211	109
1923	174,835	171	46
1924	215,203	154	9
1925	155,032	136	41
1926	136,941	146	19
1927	148,020	150	34
1928	182,400	77	30
1929	142,126	90	6
1930	133,733	110	12
1931	117,076	100	30
1932	153,410	115	64
1933	145,162	101	64
1934	138,948	106	10
1935	144,398	110	84
1936	129,442	110	79
1937	111,069	108	28
1938	110,920	94	31
1939	118,335	99	9
1940	159,234	103	36
1941	146,862	103	82
1942	171,636	105	88
1943	170,755	108	85
1944	143,180	82	82
1945	179,831	97	84
1946	177,171	106	97
1947	160,687	106	80
1948	190,620	110	91
1949	176,824	113	86
1950	150,614	111	85
1951	48,242	91	---
1952	20,558	42	---
TOTAL		5,233,182	

TABLE XI

Mine Number 771, Foothills

1918 - 1952 Foothills Collieries
 1952 - 1958 Canadian Collieries (Dunsmuir) Ltd.
 1959 - 1961 Canadian Collieries Resources Ltd.
 1961 - Abandoned

	Tonnage	Monthly Employment. Maximum and Minimum Totals for Each Year.	
		Maximum	Minimum
1918	2,631	30	7
1919	14,013	55	---
1920	31,708	51	29
1921	33,214	99	37
1922	25,799	102	4
1923	24,604	95	9
1924	39,129	129	9
1925	43,960	154	11
1926	39,991	102	6
1927	57,040	131	22
1928	81,563	186	58
1929	83,226	157	39
1930	69,041	146	47
1931	43,941	143	64
1932	45,595	115	29
1933	45,417	115	24
1934	45,170	106	25
1935	56,617	110	26
1936	55,939	110	22
1937	50,042	113	25
1938	49,720	122	12
1939	45,331	117	10
1940	45,768	111	6
1941	54,708	107	8
1942	95,793	121	82
1943	90,456	119	89
1944	117,204	129	110
1945	120,190	121	93
1946	111,909	122	70
1947	107,868	120	103
1948	103,387	125	108
1949	118,818	136	78

TABLE XI (continued)

Mine Number 771, Foothills

	Tonnage	Monthly Employment. Maximum and Minimum Totals for Each Year.	
		Maximum	Minimum
1950	134,959	142	115
1951	118,863	145	113
1952	120,033	138	107
1953	88,883	124	80
1954	118,559	111	99
1955	102,006	110	95
1956	105,889	98	84
1957	75,255	91	25
1958	---	---	---
1959	2,671	8	---
1960	1,592	10	---
TOTAL	2,818,502		

TABLE XII

Mine Number 775, Robb

1918 - 1920	Minehead Coal Company
1920 - 1921	Alex Susner
1921 -	Balkan Coal Company
1921 - 1922	Alberta Standard Coal Company
1922 - 1927	Balkan Coal Company, Limited
1927 - 1949	Lakeside Coal Company
1949 - 1955	Abandoned
1955 - 1957	Minehead Coal and Oil
1957 -	Abandoned

Tonnage Monthly Employment. Maximum and Minimum
Totals for Each Year.

		Maximum	Minimum
1918	286	17	15
1919	791	26	---
1920	---	---	---
1921	14,329	43	---
1922	12,805	52	---
1923	17,764	45	19
1924	26,723	49	22
1925	18,305	70	4
1926	11,497	43	16
1927	24,756	70	25
1928	39,981	87	57
1929	40,251	87	33
1930	39,468	117	33
1931	29,699	92	46
1932	26,698	80	31
1933	37,199	99	45
1934	29,465	96	41
1935	33,399	91	44
1936	31,948	85	48
1937	33,969	74	44
1938	28,829	73	30
1939	30,266	79	35
1940	40,054	85	37
1941	66,056	98	42
1942	100,224	123	95
1943	76,135	127	75
1944	34,420	125	---
1945	22,983	90	51
1946	25,416	81	---

TABLE XII (continued)

Mine Number 775, Robb

Tonnage	Monthly Employment. Maximum and Minimum Totals for Each Year.	
	Maximum	Minimum
1947	---	---
1948	---	---
1949	5,555	42
1950	---	---
1951	---	---
1952	---	---
1953	---	---
1954	---	---
1955	191	4
1956	11	1
TOTAL	899,473	

TABLE XIII

Mine Number 829, Reco

1919 - The Blackstone Coal Company, Ltd.
 1919 - 1921 Blackstone Coal Limited
 1921 - Johnstone Carscadden
 1921 - Abandoned
 1921 - A.E. Oakley and Company
 1921 - 1922 Stupor, Oakley and Company
 1922 - Abandoned

Tonnage Monthly Employment. Maximum and Minimum
 Totals for Each Year.

		Maximum	Minimum
1919	2,736	53	31
1920	33,561	94	12
1921	7,687	73	---
1922	19,189	46	32
TOTAL	63,173		

TABLE XIV

Mine Number 833, Mile 54

1919 - 1923	Brookdale Collieries
1923 - 1925	Superior Collieries
1925 - 1926	A. Dino and Company (Superior Mines)
1926 -	Vitaly, Dino and Company
1926 - 1932	Northern Alberta Coal Mines, Ltd.
1932 - 1934	Commonwealth Coal Co.
1934 -	Mount Cheviot Coal Co.
1934 -	Abandoned

Tonnage Monthly Employment. Maximum and Minimum
Totals for Each Year.

		Maximum	Minimum
1919	971	21	20
1920	15,833	36	17
1921	1,562	32	
1922	---	---	
1923	8,892	40	
1924	28,083	86	
1925	5,717	37	
1926	5,866	42	
1927	2,526	38	
1928	4,176	21	
1929	1,404	29	
1930	---	---	
1931	---	---	
1932	63	8	
1933	243	16	
TOTAL	75,336		

TABLE XV

Mine Number 846, Mercoal

1920 -	Louis Stupor
1920 - 1924	McLeod River Hard Coal Co., Ltd.
1924 - 1928	Saunders Ridge Coal Co.
1928 - 1931	McLeod River Collieries Ltd.
1931 - 1932	National Trust Company as Receiver
1932 - 1952	McLeod River Hard Coal Co., Ltd.
1952 - 1957	Canadian Collieries (Dunsmuir) Ltd.
1957 - 1959	Canadian Collieries Resources Ltd.
1959 - 1963	Abandoned
1963 - 1965	McLeod River Hard Coal Co.
1965 -	Abandoned

Tonnage Monthly Employment. Maximum and Minimum
Totals for Each Year.

		Maximum	Minimum
1920	9,035	38	11
1921	11,918	22	10
1922	17,497	35	---
1923	16,512	31	---
1924	18,791	92	1
1925	56,446	106	29
1926	76,187	123	71
1927	95,247	161	69
1928	78,692	180	100
1929	79,643	166	52
1930	65,193	167	41
1931	27,127	127	52
1932	24,712	90	70
1933	22,290	89	76
1934	20,254	78	51
1935	26,214	87	72
1936	26,682	83	63
1937	34,236	95	71
1938	44,658	98	79
1939	37,478	104	14
1940	43,643	93	7
1941	66,353	161	47
1942	128,425	214	151
1943	183,070	262	172
1944	217,472	275	239

TABLE XV (continued)

Mine Number 846, Mercoal

	Tonnage	Monthly Employment. Maximum and Minimum Totals for Each Year.	
		Maximum	Minimum
1945	289,868	327	281
1946	305,321	367	328
1947	288,648	388	354
1948	252,817	379	335
1949	308,514	414	340
1950	297,845	415	362
1951	257,958	404	314
1952	258,582	359	309
1953	214,562	351	279
1954	249,077	313	304
1955	237,280	305	286
1956	260,405	297	272
1957	234,818	294	270
1958	219,151	293	279
1959	142,053	332	---
1960	---	---	---
1961	---	---	---
1962	---	---	---
1963	1,871	9	---
1964	5,896	13	7
1965	194	3	---
TOTAL 5,243,635			

TABLE XVI

Mine Number 854, Lovett

1920 - 1921 The Pacific Colliery
 1921 - Puckett and Crawford Mine
 1921 - Abandoned

Tonnage		Monthly Employment. Maximum and Minimum Totals for Each Year.	
		Maximum	Minimum
1920	3,606	21	6
1921	1,827	27	10
TOTAL		5,433	

TABLE XVII

Mine Number 896, Reco

1921 - 1922 Johnston Carscadden
 1922 - 1924 Blackstone Coal, Ltd.
 1924 - 1925 Vitaly Company, Ltd.
 1925 - Abandoned

Tonnage		Monthly Employment. Maximum and Minimum Totals for Each Year.	
		Maximum	Minimum
1921	1,823	22	---
1922	37,918	94	---
1923	18,339	54	---
1924	17,231	48	---
1925	---	3	---
TOTAL	75,311		

TABLE XVIII

Mine Number 897, Lovett

1921 - 1922 James H. Bryan
 1922 - 1923 Bryan Coal Company
 1923 - Abandoned

Tonnage		Monthly Employment. Maximum and Minimum Totals for each Year.	
		Maximum	Minimum
1921	4,210	32	---
1922	5,274	26	---
TOTAL	9,484		

TABLE XIX

Mine Number 905, Luscar

1921 - 1937 Luscar Collieries, Limited
 1937 - 1958 Luscar Coals Limited
 1958 - Abandoned

	Tonnage	Monthly Employment. Maximum and Minimum Totals for Each Year.	
		Maximum	Minimum
1921	5,548	31	26
1922	83,057	155	13
1923	151,102	234	97
1924	61,699	235	15
1925	133,815	228	43
1926	213,979	277	186
1927	244,590	385	254
1928	245,364	281	240
1929	291,919	284	236
1930	169,083	240	188
1931	122,345	208	185
1932	187,375	265	185
1933	125,677	198	193
1934	116,980	193	165
1935	118,238	172	155
1936	136,456	168	164
1937	159,332	176	168
1938	143,431	193	166
1939	164,386	221	180
1940	276,393	274	220
1941	236,053	305	255
1942	300,982	303	255
1943	302,882	292	264
1944	274,295	289	249
1945	245,528	275	215
1946	395,829	241	210
1947	313,148	252	215
1948	389,931	251	96
1949	384,033	262	219
1950	525,067	264	189
1951	506,256	287	244
1952	512,465	339	279
1953	482,681	323	176
1954	265,075	195	70
1955	178,335	97	75
1956	116,656	86	----
1957	----	----	----
1958	1,121	2	----
TOTAL	8,581,106		

TABLE XX

Mine Number 1002, Coal Valley

1922 - 1951 Coal Valley Mining Company, Ltd.
 1951 - 1955 Sterling - Coal Valley Mining Co., Ltd.
 1955 - Abandoned

Tonnage		Monthly Employment. Maximum and Minimum Totals for Each Year.	
		Maximum	Minimum
1922	38,849	105	82
1923	113,632	120	---
1924	154,521	116	52
1925	180,961	135	73
1926	122,023	132	---
1927	156,564	13	43
1928	212,282	116	107
1929	177,638	112	85
1930	170,411	94	60
1931	163,175	86	22
1932	184,856	109	61
1933	164,203	100	70
1934	163,106	93	70
1935	143,544	102	68
1936	134,457	95	61
1937	118,678	74	42
1938	116,397	79	57
1939	128,124	79	48
1940	159,191	94	62
1941	173,939	92	72
1942	161,112	100	82
1943	181,135	102	90
1944	137,240	99	34
1945	4,200	63	30
1946	195,597	100	62
1947	188,912	94	64
1948	234,133	86	63
1949	198,557	88	74
1950	184,537	87	79
1951	239,984	95	83
1952	227,041	116	91
1953	225,845	105	85
1954	129,969	78	48
1955	65,627	53	---
TOTAL		5,350,440	

TABLE XXI

Mine Number 1014, Reco

1922 -	Ballorim and Sobotin
1922 - 1924	Blackstone Coal Ltd.
1924 - 1925	J. Sobotin and Co.
1925 - 1926	Reco Hard Coal Co., Ltd.
1926 -	Elkhead Collieries Ltd.
1926 - 1927	Elkhead Hard Coal Company
1927 - 1928	Abandoned
1928 - 1929	Melrose Coal Co.
1929 - 1930	Abandoned
1930 - 1932	The Val d'Or Collieries
1932 -	Abandoned

Tonnage Monthly Employment. Maximum and Minimum
Totals for Each Year.

		Maximum	Minimum
1922	7,710	21	---
1923	2,696	45	---
1924	4,114	13	---
1925	15,301	82	---
1926	3,512	35	---
1927	---	---	---
1928	---	---	---
1929	---	---	---
1930	2,217	26	12
1931	1,745	22	---
TOTAL	37,295		

TABLE XXII

Mine Number 1078, Reco

1923 - Western Consolidated Hard Coal Co., Ltd.
 1923 - 1924 The Wellington Coal Co.
 1924 - 1925 Corona Coal Co.
 1925 - Abandoned

Tonnage		Monthly Employment. Maximum and Minimum Totals for Each Year.	
		Maximum	Minimum
1923	300	9	
1924	1,597	10	
TOTAL	1,897		

TABLE XXIII

Mine Number 1157, Robb

1924 - 1939	Bryan Coal Co., Ltd.
1939 -	P.A. Robb
1939 - 1941	Bryan Power and Coal Co., Ltd.
1941 - 1950	Thirty-Two Collieries Ltd.
1950 - 1952	North Western Coal and Oil Ltd.
1952 - 1963	Bryan Mountain Coal Co., Ltd.
1963 - 1966	King Coal Ltd.
1966 -	Abandoned

Tonnage		Monthly Employment. Maximum and Minimum Totals for Each Year.	
		Maximum	Minimum
1924	658	45	26
1925	12,681	53	8
1926	15,042	43	5
1927	19,212	57	3
1928	30,043	72	24
1929	31,507	72	24
1930	21,517	66	---
1931	13,424	55	4
1932	17,178	58	3
1933	12,971	54	3
1934	13,165	50	14
1935	9,314	48	---
1936	10,148	52	3
1937	2,600	39	2
1938	903	22	---
1939	902	19	4
1940	729	12	---
1941	2,015	20	---
1942	871	30	44
1943	11,531	47	21
1944	1,824	30	---
1945	214	28	---
1946	17,573	49	27
1947	8,660	41	31
1948	1,249	35	---
1949	---	---	---
1950	15,252	104	---
1951	84,757	171	86
1952	121,476	193	111

TABLE XXIII (continued)

Mine Number 1157, Robb

	Tonnage	Monthly Employment. Maximum and Minimum Totals for Each Year.	
		Maximum	Minimum
1953	106,796	210	123
1954	20,210	221	---
1955	---	---	---
1956	---	---	---
1957	---	---	---
1958	---	---	---
1959	---	---	---
1960	---	---	---
1961	---	---	---
1962	---	---	---
1963	25	1	---
1964	---	---	---
1965	---	---	---
TOTAL	604,447		

TABLE XXIV

Mine Number 1239, Lovett

1926 - 1928 Alberta Canadian Collieries
 1928 - Abandoned

	Tonnage	Monthly Employment. Maximum and Minimum Totals for Each Year.	
		Maximum	Minimum
1926	200	95	25
1927	543	46	---
TOTAL	743		

TABLE XXV

Mine Number 1241, Reco

1926 - 1928 McVeigh and Campbell Mine
 1928 - Abandoned

	Tonnage	Monthly Employment. Maximum and Minimum Totals for Each Year.	
		Maximum	Minimum
1926	---	---	---
1927	---	---	---
1928	---	---	---
TOTAL	---		

TABLE XXVI

Mine Number 1264, Lovett

1927 - 1930 Superba Coal Company, Ltd.
 1930 - 1932 Newcastle Junior Mining Co., Ltd.
 1932 - Abandoned

	Tonnage	Monthly Employment. Maximum and Minimum Totals for Each Year.	
		Maximum	Minimum
1929	10,683	49	18
1930	13,716	51	29
1931	1,881	49	---
TOTAL	26,280		

TABLE XXVII

Mine Number 1363, Mountain Park

1931 - 1933 Solomon Collieries
 1933 - 1936 J.G. Pritchard
 1936 - 1938 Mount Cheviot Coal Company Ltd.
 1938 - Abandoned

Tonnage		Monthly Employment. Maximum and Minimum Totals for Each Year.	
		Maximum	Minimum
1931	419	25	20
1932	775	20	---
1933	---	6	---
1934	---	---	---
1935	---	---	---
1936	40	9	---
1937	53	25	---
TOTAL		1,387	

TABLE XXVIII

Mine Number 1392, Kaydee

1932 - 1933 K.-D. Collieries Ltd.
 1933 - 1936 Abandoned
 1936 - 1946 K.-D. Collieries Ltd.
 1946 - 1947 Abandoned
 1947 - 1953 Gregg River Collieries
 1953 - Abandoned

Tonnage		Monthly Employment. Maximum and Minimum Totals for Each Year.	
		Maximum	Minimum
1932	912	35	---
1933	---	---	---
1934	---	---	---
1935	---	---	---
1936	---	---	---
1937	---	---	---
1938	14,808	38	17
1939	37,275	50	31
1940	59,916	71	48
1941	48,679	73	50
1942	49,552	76	45
1943	29,013	56	47
1944	42,831	61	53
1945	39,031	59	18
1946	---	---	---
1947	51,145	71	---
1948	76,211	93	---
1949	76,647	81	16
1950	30,467	47	---
TOTAL		547,487	

TABLE XXIX

Mine Number 1692, Coalspur

1949 - 1951 King Coal and Lumber Ltd.
 1951 - 1960 Long Coal Co.
 1960 - 1962 Blackstone Collieries Ltd.
 1962 - Coalspur Collieries Ltd.
 1962 - 1964 MacLeod River Hard Coal Co., Ltd.
 1964 - Earl Braun Ltd.

Tonnage		Monthly Employment. Maximum and Minimum Totals for Each Year.	
		Maximum	Minimum
1949	2,407	26	25
1950	11,750	38	---
1951	2,105	30	---
1952	496	14	---
1953	---	---	---
1954	---	---	---
1955	---	---	---
1956	---	---	---
1957	---	---	---
1958	---	---	---
1959	---	---	---
1960	391	27	---
1961	4,916	26	9
1962	6,263	20	---
1963	3,310	18	---
1964	---	---	---
1965	---	---	---
TOTAL	31,638		

TABLE XXX

Mine Number 1749, Foothills

1957 - 1958 Canadian Collieries Resources Ltd.
 1958 - Abandoned

Tonnage		Monthly Employment. Maximum and Minimum Totals for Each Year.	
		Maximum	Minimum
1957	7,812	86	14
1958	8,831	81	---
TOTAL	16,643		

TABLE XXXI

Quarry Number 21, Cadomin

1955 - 1965 Inland Cement Company Limited
 1965 - Inland Cement Industries Limited

Tonnage		Monthly Employment. Maximum and Minimum Totals for Each Year.	
		Maximum	Minimum
1955	1,847	Employment has varied from 19 to 21.*	
1956	170,946		
1957	458,383		
1958	432,342		
1959	326,207		
1960	315,157		
1961	392,232		
1962	445,957		
1963	421,913		
1964	434,815		
1965	529,706		
1966	472,943		
TOTAL	4,402,448		

* Employment is very stable. These two figures have been supplied to the writer by M.T. Pero of Inland Cement Industries.

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